ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

PRINCE WILLIAM SOUND AREA

Annual Management Report

1971

Staff

Area Management Biologist . . . . . Ralph B. Pirtle
Assistant Area Management Biologist . . . . . Peter J. Fridgen
Clerk - Stenographer . . . . . Jeannette R. Bailey

Area Office: P. O. Box 669, Cordova, Alaska
Field Office: P. O. Box 47, Glennallen, Alaska

TABLE OF CONTENTS

INDEX TO TABLES

INDEX TO FIGURES AND APPENDIX TABLES

PREFACE

This is the twelfth annual management report since the Sate assumed control of the fisheries. The 1971 data is preliminary and will be finalized and corrected in subsequent reports. Data presented here supercedes information presented in previous management reports.

Persons desiring additional information should direct a specific request to the area office in Cordova.

CORDOVA COMMERCIAL FISHERIES MANAGEMENT AREA

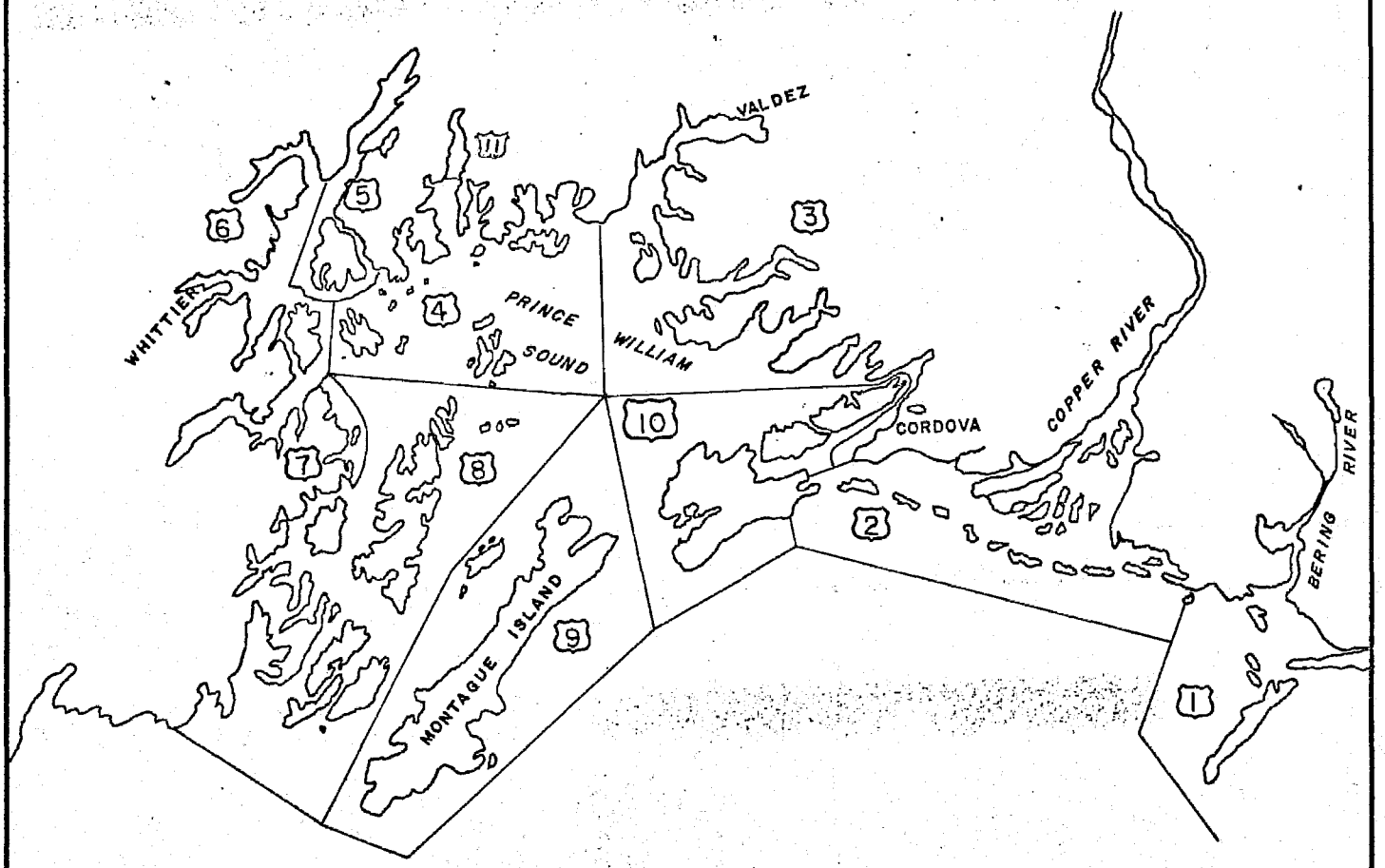

Figure 1: FISHING DISTRICTS

1. Bering River
2. Copper River
3. Eastern
4. Northern
5. Coghill
6. Northwestern
7. Eshamy
8. Southwestern
9. Montague
10. Southeastern
11. Unakwik

INTRODUCTION

This is the twelfth annual commercial fisheries management report since the State assumed control of the fisheries in 1960.

The report gives a brief description of the 1971 fishery and summarizes historical catch, escapement and related data on each species harvested by the commercial fishery. The report is compiled primarily for use as a reference source for management purposes.

The Prince William Sound area comprises all of the drainages entering the Gulf of Alaska between Cape Suckling and Cape Fairfield. The area includes Controller Bay (Bering River), Prince William Sound, Copper River and several smaller rivers entering the Copper River delta and the Gulf of Alaska (FIGURE 1).

The economy of the Prince William Sound communities depends almost entirely on the commercial fishery and related activities. The base of the major fishery activity is Cordova and, to a lesser extent, Valdez.

Fisheries of the area harvest five species of salmon, three species of crab, herring, herring spawn on kelp, halibut and razor clams. Salmon is the most important fishery resource harvested with pinks the most important followed by reds, chums, cohos and kings. The average annual wholesale value of all fishery products from the Prince William Sound Area is approximately $10,000,000. The value to fishermen of fish and shellfish landed in 1971 was about $6,526,604.

Three types of salmon net gear and troll gear are used to harvest salmon from the area. Drift gill nets are the most numerous and are used in the Bering River, Copper River, Eshamy, Coghill and Unakwik districts. Purse seines are second in abundance and are fished in all districts of Prince William Sound except Eshamy. A small number of set gill nets are fished in the Eshamy District.

In 1971 three major canneries and four smaller operations processed salmon in the area. One of these custom canned salmon for two other major processors. Two major operations processed king, tanner and Dungeness crab in 1971. TABLE 1 lists fishery operators for the Cordova area.

A staff of five biologists, one technician and approximately 25 seasonal aides conduct the research and management programs of the Prince William Sound fishery.

TABLE 1. Fishery operators, Cordova area, 1971.

Name, Executive, Address, Location of Operation	Size of Cans Lines of Machinery	Type of Product
Alaska Packers Association, Inc. * Merle Wickett, Superintendent P. O. Box AA Blaine, WA 98230 Location: Cordova		Salmon
Blake's Canning Margaret Blake, Superintendent P. O. Box 94 Cordova Location: Cordova	1/2 # flats, hand pack	Smoked salmon
Channel Packing Company Lea Buchanan, Superintendent Cordova Location: Big Point	1/2 # flats, hand pack 19 oz., hand pack	Razor clams
Chatham Fisheries Limited P. O. Box 731 Seward Location: Seward		Herring sac roe Herring roe on kelp
Fairmount Island Sea Foods William C. Baker, Superintendent Fairmount Island Location: Fairmount Island		Frozen and fresh: Dungeness crab King crab Halibut
Glacier Packing Company Percy Conrad, Superintendent P. O. Box 176 Cordova Location: Big Point	1/2 # flats, hand pack #2 - 20 Oz.	Plain salmon Smoked salmon Razor clams

TABLE 1, cont. Fishery operators, Cordova area, 1971.

Name, Executive, Address, Location of Operation	Size of Cans Lines of Machinery	Type of Product
Keith Hawley P. O. Box 363 Cordova Location: Cordova		Frozen shrimp
Kenai Packers P. O. Box 190 Kenai Location: Kenai		Buyer - salmon
Tom Lawrence P. O. Box 872 Cordova Location: Cordova		Fresh market: Red Snapper Halibut Black Cod
Martin & Peter Lubetich P. O. Box 612 Valdez Location: Valdez		Herring roe on kelp
Morpac, Inc. * Robert Morgan, Superintendent 1500 Westlake North Seattle Location: Cordova		Salmon
Mummy Island Packers P. O. Box 485 Cordova Joel Iwataki, Superintendent Location: Mummy Island		Fresh market: Razor clams

TABLE 1, cont. Fishery operators, Cordova area, 1971.

Name, Executive, Address, Location of Operation	Size of Cans Lines of Machinery	Type of Product
New England Fish Company James Forsell, Superintendent Pier 89 Seattle Location: Orca Inlet	1/2 # flats, 2 lines 1 # talls, 2 lines	Salmon Salmon Salmon eggs
Ocean Harvest Packing Company Ida deVille, Superintendent P. O. Box 178 Cordova Location: Cordova	1/2 # flats, hand pack	Smoked salmon
Odiak Smokeries Jean Dettinger, Superintendent P. O. Box 153 Cordova Location: Cordova	1/2 # flats, hand pack	Plain salmon Smoked salmon
Carl Olsen P. O. Box 782 Cordova Location: Cordova		Fresh market: Razor clams
Point Chehalis Packers, Inc. Ken Roemhildt, Superintendent P. O. Box 388 Westport, WA Location: Cordova	1/2 # flats, 1 line 1 #, 1 line 4 #, hand pack 1/2 # flats	Salmon Dungeness crab Tanner crab Frozen king crab Salmon heads Halibut Razor clams Herring Smelt Salmon Eggs

TABLE 1, cont. Fishery operators, Cordova area, 1971.

Name, Executive, Address Location of Operation	Size of Cans Lines of Machinery	Type of Product
Polar Pacific, Ltd. Victor W. Olsen, Superintendent 1500 Westlake North Seattle Location: Prince William Sound		Herring roe on kelp Buyer - salmon
St. Elias Ocean Products James Poor, Superintendent P. O. Box 548 Cordova Location: Cordova	1/4 #, flats, 1 line 1/2 # flats, 1 line 4 #, hand pack	Salmon Frozen: Dungeness crab Tanner crab King crab Halibut Razor clams - bait Herring - bait
Seward Fisheries Linne Bardarson, Superintendent P. O. Box 516 Seward Location: Seward		Herring roe on kelp Herring sac roe Buyer: Salmon
Seward Marine Services P. O. Box 335 Seward Location: Seward		Herring roe on kelp
Western Alaska Enterprises STE 831 4th and Pike Bldg. 1424 4th Avenue Seattle Kiyoshi Nakamura, Superintendent		Herring roe on kelp

TABLE 1, cont. Fishery operators, Cordova area, 1971.

Name, Executive, Address Location of Operation	Size of Cans Lines of Machinery	Type of Product
Whitney - Fidalgo Seafoods, Inc. P. O. Box 99008 Seattle Location: Valdez		Buyer - salmon Herring roe on kelp Dungeness crab Tanner crab King crab Shrimp Red Snapper Halibut Herring

* New England Fish Company customed canned for Alaska Packers Association and Morpac, Inc.

ECONOMIC CONDITIONS

Since the communities of the area depend almost entirely on the fishery the economy, especially of Cordova, fluctuates almost directly with the fishing success.

Recent increases in salmon prices paid to fishermen have resulted in substantial benefits to the fishing community. Shellfish prices have fluctuated considerably during the past few years, geared primarily to the market demands, but a general upward trend is noted.

A fair to good economic condition exists at the present time as indicated by the gradual upgrading of the fishing fleet and the recent addition of several new vessels to the fishing fleet. The trend has been toward newer and larger fishing vessels. Diversity of the fishing fleet which is indicated by the number of vessels engaged in both salmon and crab fisheries has probably contributed to some economic stability. Higher prices paid for salmon is largely due to more salmon going into fresh - frozen market use, and conversely, higher prices have caused the canners to divert more salmon to frozen products. For example, in 1970 and 1971 only 118 and 190 cases of king salmon, and in 1970 8,857 cases of coho salmon were canned. The remaining kings and cohos were frozen for fresh markets or converted to other products. TABLE 2 shows the 1971 salmon pack by species.

TABLE 3 shows the comparative catch value per fisherman by district for the years 1963 to 1971.

A summary of salmon gear operated in the Cordova area from 1960 to 1971 is presented in TABLE 4.

The numbers and value to fishermen of salmon landed in the Cordova area from 1951 to 1971 can be found in APPENDIX TABLE 1.

A boost to the economy of the area came about as a result of increased interest and harvest of tanner crab and herring spawn on kelp. The tanner crab fishery, which had its beginning in 1968, produced a catch of 642,340 pounds in 1971 which had a value to fishermen of $70,657.40. The herring spawn on kelp harvest netted $384,411 to fishermen.

The 1971 wholesale value of fishery products from the Cordova area is presented in TABLES 55 through 62. APPENDIX TABLE 19 gives historical wholesale value from 1960 through 1971.

TABLE 2. Prince William Sound, Copper River and Bering River area case pack report and pounds of frozen salmon, by species, by week, 1971. 1/

Week No.	Kings		Reds		Cohos		Pinks		Chums	
	Pounds Frozen	Cases	Pounds Frozen	Cases	Pounds Frozen	Cases	Pounds Frozen	Cases	Pounds Frozen	Cases
21	28	1	312	1						
22				17						
23	147,727	5	32,076	17,901						
24	158,402	42	14,350	10,103						211
25	53,192	19	19	6,845						120
26	18,234	63	20	6,512				2		353
27	8,309	15		5,213		2		64		649
28	2,277	6		4,805		9		465		1,467
29	892		33,644	2,907		240		9,739		7,368
30	604	2	30,305	2,117	179	451	57	21,280		7,761
31	804	4	19,577	783	1,630	401	40	34,572	87	8,720
32	284	6	7,512	516	3,022	1,178	42	70,361	105	7,303
33	198		1,950	200	5,233	1,458	15	59,142	10	5,068
34				10		326		7,750		367
35		9 *		6		3,525		35 *		9 *
36						5,309				3 *
37		10 *		13 *		6,804		23 *		11 *
38				3 *	420	5,110				
39						2,992				
40		8 *		1 *		62		5 *		3 *
TOTALS	390,951	190	139,765	57,953	10,484	27,867	154	203,438	202	39,413

1/ From reports of processors in the Cordova area. Frozen salmon reported in raw weight and cases on the basis of 48 - 1 lb. cans.

* Packed during previous weeks but not reported - samples out of batches of cooks.

PRICE OF FISH AND SHELLFISH

Price negotiations were conducted by fishermen and canners prior to the Copper River salmon season opening on May 15 and continued periodically until agreed prices were finally reached on May 30. The prevailing prices paid for salmon is shown in APPENDIX TABLE 2 which shows a substantial increase of six cents per pound for king salmon. Increases were also obtained by the fisherman for other salmon except coho which shows a considerable drop in price per pound from the previous year. A differential price, above the basic price, will be paid for pink and chum salmon after the 1971 case pack is sold.

A price increase was obtained by fishermen for Dungeness and king crab but other shellfish and halibut prices remained the same as 1970.

A large harvest of herring and herring spawn on kelp was made in 1971 for which fishermen were paid $35 a ton for herring and fifty cents per pound for herring spawn on kelp for landings on the fishing ground.

Herring for crab bait sold for $4 a 50 pound bag which is the same price as the previous year.

APPENDIX TABLE 4 lists the prices paid for shellfish and miscellaneous fish products.

AVERAGE WEIGHT AND NUMBER OF SALMON PER CASE

The average weight of salmon by major fishery and species is shown in TABLE 5, and the number of salmon per case is given in TABLES 6 and 7. Average weights as given in TABLE 5 were calculated from numbers and weights recorded on fish tickets.

The number of salmon per case was obtained from the annual report of New England Fish Company's Orca Cannery. Historical data is presented in APPENDIX TABLE 5.

TIME OPEN TO FISHING AND CALENDAR WEEKS

The time open to fishing is expressed by month, day, gear and regulatory area in TABLE 8. Fishing time is shown in hours per day with the blanks denoting days closed to commercial fishing.

The calendar weeks shown in TABLE 9 were used in compiling catch statistics from the 1971 landings.

TABLE 3. Average salmon catch and catch value per fisherman, 1963 - 1971.

	Year	Average Value Per Fisherman	Average Catch 3/ King	Red	Coho	Pink	Chum	District
	1963	$2,630.81		141	110	18,679	3,321	Prince William Sound 1/
	1964	3,609.77	1*	251	212	29,608	3,791	
	1965	2,214.92	4	545	48	14,396	1,577	
	1966	4,144.26		3,283	172	18,570	3,089	
	1967	1,703.77	1*	40	67	11,637	971	
	1968	1,440.40	1*	307	29	10,049	1,344	
	1969	3,907.00	3	627	26	20,607	1,315	
	1970	1,833.95	7	174	37	10,917	856	
**	1971	2,827.41	3	111	82	22,973	1,610	
	1963	$1,403.21		707	1*	112	219	Coghill-Unakwik
	1964	1,158.59	1*	573	1*	102	80	
	1965 2/	3,465.83		1,418	4	8,402	4,780	
	1966 2/	2,052.88	1*	1,012	1*	35	51	
	1967 2/	3,126.25	4	236	2	5,404	237	
	1968 2/	1,218.90	2	460	5	593	227	
	1969 2/	1,908.04	1	631	1*	53	559	
	1970 2/	970.12	*	266	2	640	105	
**	1971 2/	1,021.82	4	483	4	1,079	706	
	1963			C L O S E D				Eshamy
	1964			C L O S E D				
	1965	$ 890.73		533	2.5	12	14	
	1966	4,028.02		1,317	47	2,404	527	
	1967			C L O S E D				
	1968			C L O S E D				
	1969	6,801.61	1*	2,940	9	1,203	382	
	1970	2,498.79	*	689	23	1,773	225	
	1971			C L O S E D				
	1963	$4,607.38	30	1,832	1,170	3	1*	Copper River
	1964	7,244.45	56	3,988	1,636	2	1*	
	1965	6,393.78	50	3,392	577			
	1966	8,122.97	33	3,625	1,115	1*	1*	
	1967	5,674.42	27	1,836	1,235			
	1968	4,507.65	18	1,150	1,228	1	1*	
	1969	4,277.23	40	1,956	219	2	1*	
	1970	7,179.00	48	2,772	623	*	*	
**	1971	5,756.45	37	1,415	474	4	11	
	1963	$3,579.40	2	464	1,969			Bering River
	1964	4,995.64	2	727	2,224			
	1965	3,834.33		1,459	1,243			
	1966	4,398.90	1	1,236	1,373			
	1967	2,654.14		414	1,101			
	1968	5,328.09	1*	843	2,171			
	1969	2,344.36	1	1,154	122			
	1970	3,441.00	*	521	885			
**	1971	4,497.03	2	634	1,530	*		

* Less than one fish.

1/ Catch is average catch per boat. Value per fisherman based on an average of 3 fishermen per boat (one share to the boat).

2/ Includes both purse seines and drift gill nets during early Coghill season. Other years represent drift gill net only.

3/ Rounded to nearest fish.

** Preliminary.

TABLE 4. Summary of salmon gear operated, 1960 - 1971 1/.

Year	Prince William Sound		Copper River Drift Gill Nets 2/		Bering River Drift Gill Nets 2/	
	Purse Seines	Gill Nets 2/	Red Season	Coho Season	Red Season	Coho Season
1960	223	CLOSED	59,400	34,050	9,900	8,400
1961	102	3,750 Coghill 4,200 Eshamy 3/	50,550	25,650	6,450	4,650
1962	237	8,550 Coghill 3,750 Eshamy 3/	59,100	27,450	9,900	4,500
1963	281	3,450 Coghill	61,650	37,950	8,250	8,250
1964	154	8,850 Coghill	43,350	30,900	4,800	6,300
1965	208	3,900 Coghill 6,150 Eshamy 3/	50,100	26,850	1,950	9,300
1966	181	8,850 Coghill & Unakwik 2,700 Eshamy 3/	52,200	30,300	3,600	6,750
1967	207	18,000 Coghill & Unakwik	59,100	30,600	6,000	8,250
1968	242	21,750 Coghill & Unakwik	76,650	28,800	4,650	4,650
1969	248	14,250 Coghill & Unakwik 4,350 Eshamy 3/	53,400	22,350	4,950	9,900
1970	245	19,800 Coghill & Unakwik 3,750 Eshamy 3/	60,450	38,850	7,350	13,650
1971	245 *	19,350 Coghill & Unakwik	65,400	26,250	8,700	9,450

1/ Peak effort.
2/ Fathoms of gear, weekly effort. Basis of 150 fathoms per fisherman.
3/ Includes set and drift gill nets.
* Actual count. Other years include some duplicates.

TABLE 5. Comparative average weights of salmon by area in pounds from catch.

Area	Year	King	Red	Coho	Pink	Chum
Prince William Sound	1963	--	6.95	8.71	3.82	9.30
	1964	16.39	6.78	8.67	3.94	8.78
	1965	14.22	6.94	7.43	3.30	7.90
	1966	8.40	7.34	8.39	4.14	7.73
	1967	6.70	6.62	8.95	4.45	8.26
	1968	11.87	6.81	8.57	3.92	8.89
	1969	27.29	6.32	7.63	3.90	9.40
	1970	14.75	6.98	7.91	3.98	8.33
	1971	9.54	7.02	7.77	3.55	7.24
Copper River	1963	25.17	6.10	9.90	--	--
	1964	26.28	5.67	12.99	--	--
	1965	26.62	5.72	7.57	--	--
	1966	28.59	6.46	10.64	4.31	7.96
	1967	28.30	6.41	10.51	4.36	9.60
	1968	28.00	6.02	10.51	4.26	8.37
	1969	26.91	6.07	9.30	--	--
	1970	30.79	5.97	9.48	4.30	7.12
	1971	27.37	6.53	9.13	3.82	5.41
Bering River	1963	27.07	5.88	9.86	--	--
	1964	28.70	6.28	8.85	--	--
	1965	32.00	5.88	9.06	--	--
	1966	28.61	6.50	10.12	--	--
	1967	36.15	6.17	10.36	--	--
	1968	--	5.05	10.10	--	--
	1969	28.41	6.25	8.26	--	--
	1970	37.00	5.92	9.62	--	--
	1971	24.39	6.76	9.81	3.50	
Averages all Areas	1963	25.50	6.20	9.30	3.80	9.30
	1964	26.27	5.74	12.16	3.94	8.78
	1965	25.80	5.89	8.12	3.30	7.90
	1966	28.27	6.54	10.28	4.14	7.73
	1967	27.51	6.46	10.36	4.46	8.34
	1968	28.00	6.78	10.47	3.92	8.89
	1969	27.00	6.30	8.10	3.90	9.40
	1970	30.72	6.04	9.40	3.98	8.32
	1971	26.18	6.58	8.65	3.55	7.22

TABLE 6. Number of salmon per case, 1954 - 1971.

Prince William Sound

Year	Red	Coho	Pink	Chum
1954	9.5	9.7	16.5 1/	
1955	9.6	9.4	15.0	8.7
1956 2/				
1957	9.8	10.5	17.4	8.5
1958 2/				
1959		CLOSED SEASON		
1960	13.0	13.2	24.4	9.8
1961	10.4	9.0	17.0	9.3
1962	10.93	12.29	24.14	10.71
1963	9.53	7.23	22.89	9.14
1964 4/	13.52 3/	6.89	22.39	8.23
1965 4/	12.69 3/	10.31 5/	25.43 5/	10.23 5/
1966 4/	10.94	8.94	19.57	10.65
1967 6/	11.07	9.21	19.02	9.43
1968 6/	10.72	8.85	21.59	8.68
1969 6/	11.19	8.11	20.86	8.36
1970 6/	11.19	8.11	21.36	9.60
1971 6/	9.90	12.72	21.32	11.36

1/ Estimated number of salmon per case taken from the average of other years.
2/ The number of salmon per case not separated by area.
3/ Combined pack figure from both Copper River and Prince William Sound.
4/ Data from Parks Canning Company, except in 1965 the pinks are averaged for all canneries.
5/ New England Fish Company reported fish per case as follows: Coho 9.20, pink 24.59, and chum 10.02.
6/ Data from New England Fish Company.

TABLE 7. Number of salmon per case, 1951 - 1971.

Copper and Bering Rivers

Year	King	Red	Coho	Pink	Chum
1951 1/	3.4	11.6	8.1	18.1	9.1
1952	3.4	11.6	8.1	18.1	9.1
1953 2/	3.4	11.1	7.0	16.5	9.1
1954	3.2	11.7	7.5	--	--
1955	3.5	11.5	8.6	--	--
1956 2/	3.6	11.2	8.3	26.0	10.2
1957	3.8	11.6	--	--	--
1958 2/	3.0	11.5	8.3	17.0	9.1
1959	3.2	12.9	8.6	--	--
1960	3.6	13.4	9.3	--	--
1961	3.82	12.0	9.24	17.0	9.3
1962	3.26	11.04	10.92	18.27	11.16
1963	3.08	12.21	7.9	--	--
1964 3/	2.86	13.52	6.89	22.39	8.23
1965 3/	3.17	12.69 4/	10.31 4/	--	--
1966 5/	2.82	11.01	7.60	19.81	10.62
1967 6/	2.71	10.87	10.64	17.55	8.40
1968 6/	2.70	12.20	7.80	21.59	8.68
1969 6/	2.71	11.53	8.17	--	--
1970 6/	2.35	11.95	7.68	21.69	10.05
1971 6/	3.00	10.64	10.83	19.81	15.25

1/ Estimated number of salmon per case taken from the average of other years.
2/ The number of salmon per case not separated by area.
3/ Figures from Parks Canning Company combined for both Copper River and Prince William Sound.
4/ Includes some reds and coho from Prince William Sound.
5/ Data from Parks Canning Company.
6/ Data from New England Fish Company.

TABLE 8. Time open to fishing by month, day, gear and regulatory area, 1971. 1/

Month	MAY	JUNE*			JULY			AUGUST		SEPT.
	Copper River	Copper-Bering River	Coghill - Unakwik	Copper-Bering River	Coghill - Unakwik	P.W.S. General Purse Seine	Copper-Bering River	P.W.S. General Purse Seine	Copper-Bering River
DAY									
1		24		6	24				6
2		6		24	21		18	18	6
3		6		6			24	24	24
4		24					6	24	6
5		6		18	18		6	24	
6				24	24		24	21	18
7		18		6	24		6		24
8		24		6	24				6
9		6		24	21		18	18	6
10		6		6			24	24	24
11		24					6	24	6
12		6		18	18	18	6	24	
13				24	24	24	24	21	18
14		18		6	24	24	6		24
15	6	24		6	24	24			6
16		6		24	21	21	18	12	6
17	18	6*		6			24		24
18	24	24					6		6
19	6	6		18		18	6		
20	6			24		24	24		18
21	24	18	18	6		24	6		24
22	6	24	24	6		24			6
23		6	24	24		21	18		6
24	18	6	24	6			24		24
25	24	24	21				6		6
26	6	6		18		18	6		
27	6			24		24	24		18
28	24	18	18	6		24	6		24
29	6	24	24	6		24			6
30		6	24	24		21	18		6
31	18			6			24		24**
Total Open Hours by Mo. and Gear	MAY	JUNE			JULY		AUGUST		SEPT.
Drift Gill Net	192	366	177	372	267		378		372
Purse Seine			177		267	333		234	

1/ Time open to fishing expressed in hours per day. Blanks denote days closed to fishing.

* Bering River did not open until June 17.

** Fishing terminated in Sept., but the season remained open until the end of the year.

TABLE 9. Calendar weeks, 1971. 1/

Week	From	Thru	Week	From	Thru
1	Jan. 1	Jan. 2	28	July 4	July 10
2	" 3	" 9	29	" 11	" 17
3	" 10	" 16	30	" 18	" 24
4	" 17	" 23	31	" 25	" 31
5	" 24	" 30	32	Aug. 1	Aug. 7
6	" 31	Feb. 6	33	" 8	" 14
7	Feb. 7	" 13	34	" 15	" 21
8	" 14	" 20	35	" 22	" 28
9	" 21	" 27	36	" 29	Sept. 4
10	" 28	Mar. 6	37	Sept. 5	" 11
11	Mar. 7	" 13	38	" 12	" 18
12	" 14	" 20	39	" 19	" 25
13	" 21	" 27	40	" 26	Oct. 2
14	" 28	Apr. 3	41	Oct. 3	" 9
15	Apr. 4	" 10	42	" 10	" 16
16	" 11	" 17	43	" 17	" 23
17	" 18	" 24	44	" 24	" 30
18	" 25	May 1	45	" 31	Nov. 6
19	May 2	" 8	46	Nov. 7	" 13
20	" 9	" 15	47	" 14	" 20
21	" 16	" 22	48	" 21	" 27
22	" 23	" 29	49	" 28	Dec. 4
23	" 30	June 5	50	Dec. 5	" 11
24	June 6	" 12	51	" 12	" 18
25	" 13	" 19	52	" 19	" 25
26	" 20	" 26	53	" 26	" 31
27	" 27	July 3			

1/ Used for 1971 catch statistics.

BERING RIVER DISTRICT

INTRODUCTION

The Bering River district includes all waters between Cape Martin and Cape Suckling. The salmon migrating into this district utilize spawning areas of the Bering River system. The major red salmon spawning areas of the system are Bering Lake and Dick Creek. Kustaka Lake and Shepard Creek may be major contributors, but because of the glacial nature of these systems, spawning escapement estimates cannot be accurately determined.

Commercial Fishery

The Bering River red salmon commercial season opened Thursday, June 17. The two day catch of the opening period reached 12,544 red salmon for an average catch of almost three hundred fish per boat. The fishery continued for three more weeks, and a total of 36,744 red salmon was harvested for the season. The seasonal total catch is approximately 10,000 fish above the 18 year average.

The major fishery of this district is the silver salmon fishery. This fishery begins in week 35 and normally continues through week 39. The total catch of 88,711 cohos was the highest recorded catch since 1954 and was 30,433 fish higher than the 18 year average, TABLE 13. TABLES 10 through 12 summarize the past season catch and effort data while FIGURES 2,3 and 4 describe graphically the seasonal catch trends for the past 10 to 12 years. APPENDIX TABLE 6 presents the Bering River commercial catch from 1896 - 1926, and 1951 - 1971.

Escapement

Red salmon escapements into index streams of the Bering River district, TABLE 14, almost doubled 1970 estimates. Dick Creek escapements showed the greatest improvement with spawner distribution closer to the headwaters than has been observed in the past. Shepard Creek and Bering Lake also showed improvement over 1970 figures. TABLE 15 gives comparable escapement estimates into this system for the past eight years.

TABLE 10. Bering River red salmon weekly catch, 1971.

Week No.	Total Catch	Total Pounds	Average Wt./Fish	Number Boats 1/	Average No. Fish/Boat
25	12,544	83,456	6.6	42	299
26	16,353	111,307	6.8	58	282
27	5,139	35,015	6.8	27	190
28	2,738	18,804	6.8	9	304
TOTAL *	36,774	248,582	6.8		

TABLE 11. Bering River king salmon weekly catch, 1971.

Week No.	Total Catch	Total Pounds	Average Wt./Fish	Number Boats 1/	Average No. Fish/Boat
25	16	419	26.1	42	
26	98	2,241	22.8	58	
27	6	270	45	27	
28	1	30	30	9	
TOTAL *	121	2,960	24.5		

TABLE 12. Bering River coho salmon weekly catch, 1971.

Week No.	Total Catch	Total Pounds	Average Wt./Fish	Number Boats 1/	Average No. Fish/Boat
35	2,317	17,887	7.7	26	89.0
36	17,903	153,018	8.5	50	358.0
37	28,149	263,205	9.3	50	562.9
38	32,122	353,411	11.0	63	500.8
39	8,220	82,431	10.0	36	228.3
TOTAL *	88,711	869,952	9.8		

1/ 150 fathoms of drift gill net gear per boat.
* Final salmon catch summary by Statistics Section lists 36,776 reds, 105 kings, 88,231 cohos and 4 pinks.

TABLE 13. Bering River drift gill net salmon catch, 1953 - 1971. 1/

Year	Kings	Reds	Cohos	Pinks	Chums
1953	26	8,572	0	0	0
1954 2/	0	129	91,964	9	1
1955	125	34,121	70,100	50	2
1956	147	41,437	53,484	46	5
1957	71	29,142	27,441	27	22
1958	72	23,947	21,202	32	1
1959	77	27,384	58,560	6	0
1960	63	32,890	68,255	101	5
1961	29	55,084	50,883	30	1
1962	246	72,230	55,502	0	2
1963	72	21,525	87,075	56	0
1964	47	16,911	77,360	0	0
1965	7	13,536	52,162	7	164
1966	36	24,894	49,580	0	0
1967	13	11,464	46,135	3	2
1968	10	26,136	67,310	--	--
1969	44	38,093	4,033	--	--
1970	26	23,539	79,264	--	--
1971 * 1972	121	36,774	88,711		
TOTAL	1,232	537,808	1,049,021	367	206
AVERAGE	64	28,305	58,278	20	11

1/ In 1953 through 1964 the opening date of the Bering River area fishery was the same as the Copper River area. In 1967 the season opened June 19. In 1968, 1969 and 1971 the opening date was June 17.

2/ Set gill nets caught 129 reds and 7,665 cohos in 1954.

* Final salmon catch summary by Statistical Section lists 105 kings, 36,776 reds, 88,231 cohos and 4 pinks.

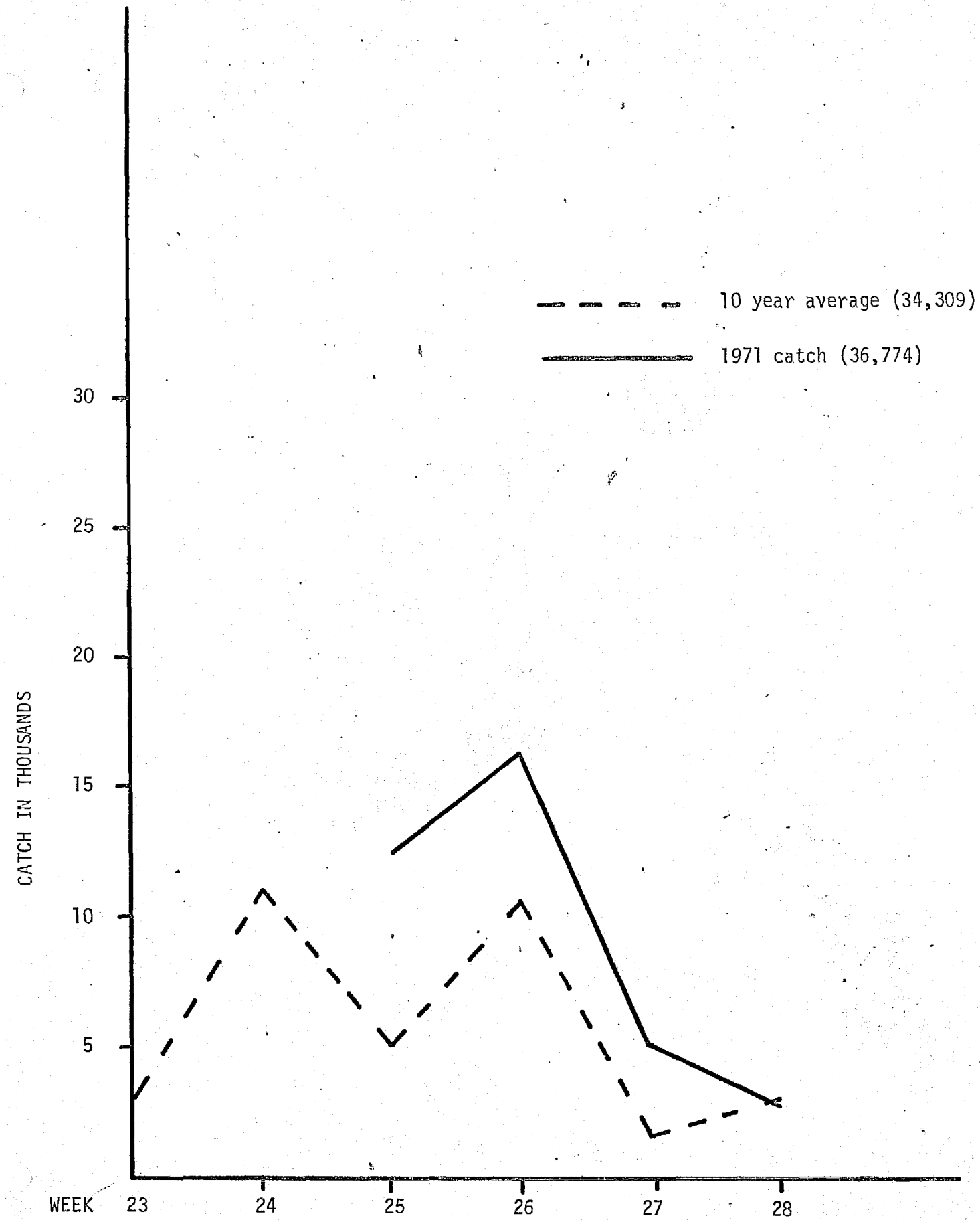

FIGURE 2. Bering River 1971 red salmon catch as compared to a 10 year average. The season has been closed prior to June 17 - 19 from 1967 to the present.

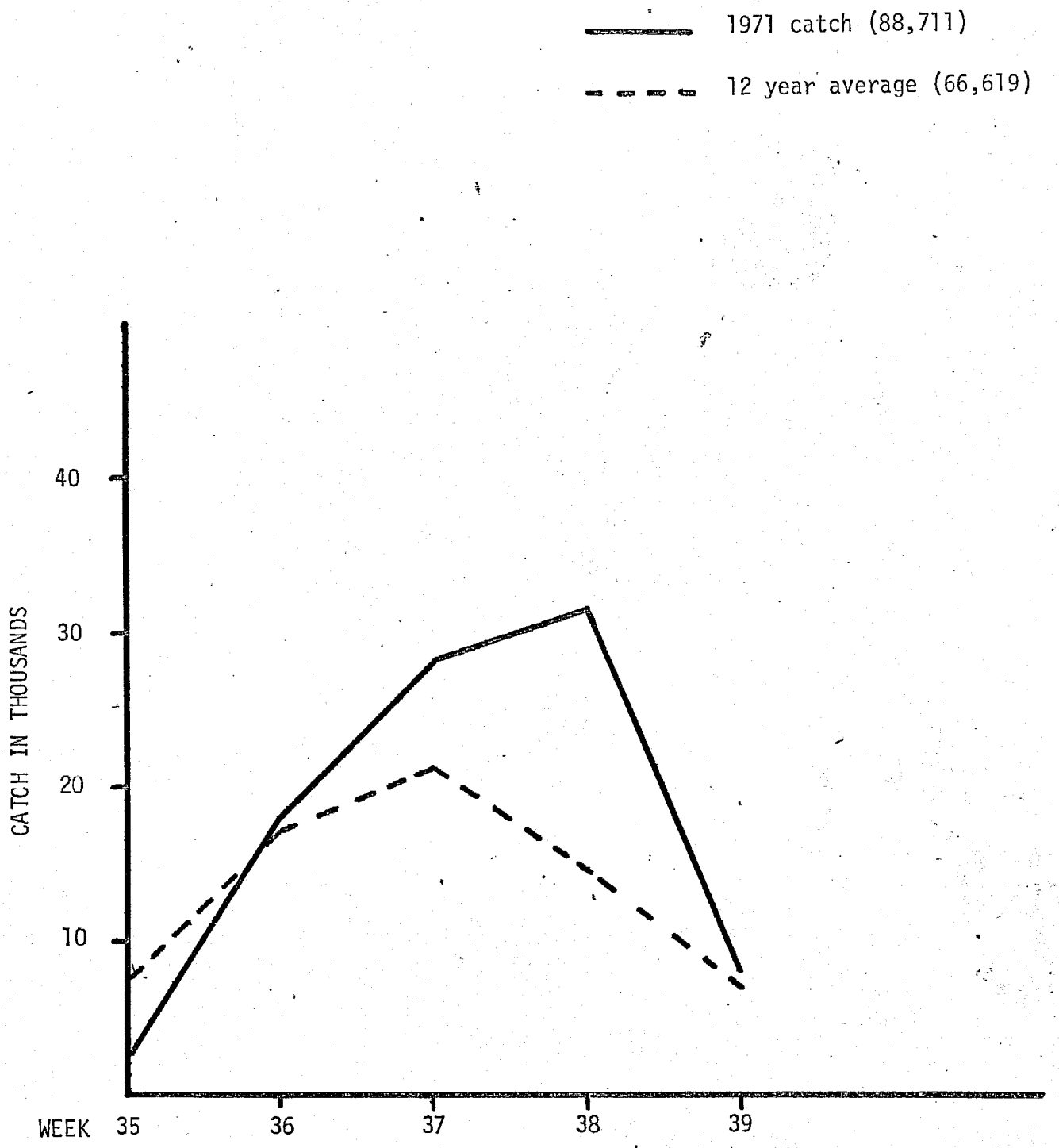

FIGURE 3. Bering River 1971 coho salmon catch as compared to a 12 year average.

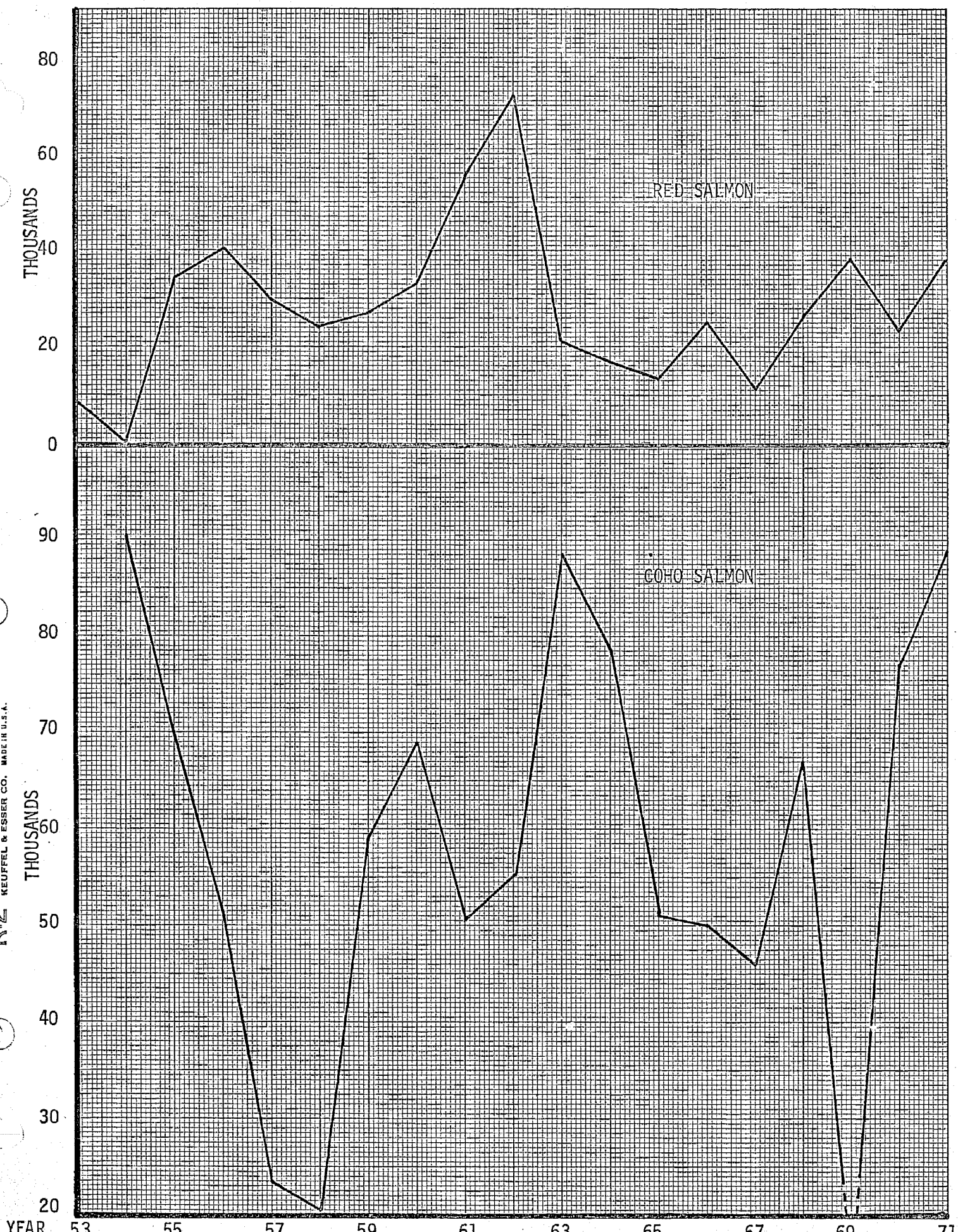

FIGURE 4. Commercial catches of red and coho salmon from the Bering River district, 1953 to 1971.

TABLE 14. Estimated spawning escapement of red salmon, Bering River district, 1971.

System	Estimated Escapement 1/
Bering Lake	21,675
Dick Creek	30,000
Shepard Creek	10,200
TOTAL	61,875

TABLE 15. Comparable estimated red salmon spawning escapements on selected systems, Copper - Bering River districts, 1964 - 1971.

System	1964	1965	1966	1967	1968	1969	1970	1971
Eyak Lake	13,550	15,995	5,400	800	1,360	21,000	28,742	5,800
McKinley Lake	1,470	1,080	4,000	1,200	0	500	5,000	1,700
39 Mile	1,850	2,100	4,550	1,120	2,000	3,000	5,997	8,270
Tokun Lake	8,900	31,000	4,900	turbid	3,500	700	19,764	23,000
Little Martin Lake	650	230	1,050	800	0	400	0	3,000
Martin Lake	6,600	10,885	7,510	5,400	1,000	1,500	600	4,500
Martin River Slough	2,650	3,300	2,145	600	3,500	4,000	4,450	5,000
Copper River Subtotal	35,670	64,590	29,550	9,920	11,360	31,100	64,553	51,270
Bering Lake	400	280	3,180	2,500	9,400	47,000	20,000	21,675
Dick Creek	2,700	4,100	3,000	4,350	19,000	15,000	13,500	30,000
Kushtaka Lake	1,450	525	1,730	turbid	turbid	turbid	turbid	
Clear Creek	1,500	1,600	turbid	"	"	"	"	
Trout Creek	50	20	263	"	"	"	"	
Shepard Creek						6,000	6,000	10,200
Bering River Subtotal	6,100	6,525	8,173	6,850	28,400	62,000	39,500	61,875
Mentasta Lake	800	6,500	1,700	850	300	2,700	4,958	3,195
Gulkana River	16,800	13,180	31,450	12,859	10,750	15,615	24,998	11,150
St. Anne Creek	1,500	5,800	4,800	5,424	3,500	4,300	18,300	~~25,100~~ 29,90
Mahlo	150	3,300	turbid	2,585	3,000	3,300	8,631	~~12,400~~ 14,48
Manker Creek	0	0	0	25	1	no survey	0	no survey 0
Bad Crossing	30	6,030	150	no survey	5	3,500	1,650	" " 0
Mendeltna Creek	760	3,000	4,800	1,959	1,350	6,805	4,700	870
Upper Copper River Subtotal	20,040	37,810	42,900	23,702	18,906	32,220	63,237	~~52,715~~ 59,605
Copper River Delta	35,670	64,590	29,550	9,920	11,360	31,100	64,553	51,270
Bering River District	6,100	6,525	8,173	6,850	28,400	62,000	39,500	61,875
Upper Copper River	20,040	37,810	42,900	23,702	18,906	32,220	63,237	52,715
TOTALS	61,810	108,925	80,623*	40,472	58,666	128,320	167,290	165,860

* Aerial survey counts for 1966 were not comparable with past years due to abnormal weather conditions during the peak spawning periods which caused high runoffs and poor visability resulting in minimal counts.

COPPER RIVER DISTRICT

INTRODUCTION

The Copper River district includes all waters of Hinchinbrook Island between Hook Point and Boswell Rock including Boswell Bay; and all waters south of a line from Boswell Rock to the radio tower at Whitshed Village. All waters between Whitshed Village and Cape Martin are also included in this district.

Commercial fishing for red salmon in this district begins May 15 of each year and is regulated by a series of equal open and closed fishing periods. Prior to August 7, open fishing is permitted for three and one-half days each week. After August 7 commercial fishing for coho salmon is allowed on a five day per week basis.

The major harvest occurs on red and coho salmon although king, chum and pink salmon are also incidental contributors to the overall catch.

Commercial Fishery

The 1971 commercial salmon fishery did not begin on the scheduled date although the season was officially opened on May 17, week 21. Fishermen and canning industry representatives did not reach price agreements on red or king salmon until May 29, and fishing began on May 31, week 23.

The fishermen's strike was a fortunate occurrence. Due to heavy river ice and presumable low water temperatures, red and king salmon did not enter the Copper River but remained in the ocean off the river's mouth. Test nets were set in open water areas of the river and the first red salmon were taken on May 29. At that time the river ice also began to move, and within 24 hours main river channels were open. When this occurred the fish began their spawning migration.

During the first half of the following weekly period a storm with winds over 80 MPH swamped boats and forced fishermen to abandon fishing gear. The commercial catch of 273,975 red salmon for the first week of fishing was extremely good considering the weather, but, fishermen interviewed later in the week indicated that over 100,000 fish were lost in gear and swamped boats during the storm. On one flight made over the fishing grounds immediately after the storm, 18 strings of gear adrift were counted in the Egg Island area alone. All loose gear observed at that time appeared to be loaded with fish.

The season's total commercial catch of 617,011 red salmon was an average harvest for the area. If weather had not beer a limiting factor during the opening period a more realistic harvest of 800,000 fish may have been realized. TABLE 16 presents catch and effort data for this fishery while FIGURE 5 graphically displays this same information. FIGURES 6 and 7 compare the 1971 catch to historical catches, and APPENDIX TABLE 7 presents Copper River catches from 1889 to 1971. FIGURE 8 shows commercial catches of red, coho and king salmon from the Copper River district from 1953 to 1971.

The king salmon catch of 16,160 individual fish was approximately 4,000 fish above the average harvest. This fishery is an "incidental catch" fishery and the majority of kings taken are caught with red salmon gear. Normally the catch of king salmon, as recorded from fish tickets, is low and does not include kings kept by the fishermen for home use. Weekly catch, effort and associated data are given in TABLE 17.

The coho salmon fishery was extremely good in 1971. This fishery is officially opened August 7 although some cohos are taken incidentally in the red salmon fishery prior to that time. The total catch for the season of 208,784 cohos was approximately 64,310 fish over the 17 year average.

The amount of gear participating in this fishery depends, primarily, on the success of the Prince William Sound seine fishery. In 1971 over seven million pink and chum salmon were taken in the seine fishery and the peak effort on the flats coho fishery only reached 173 boats. During the 1970 seine season approximately three million pink salmon were harvested and the peak effort in the coho fishery was 259 boats, although the 1970 run was much smaller. Presented in TABLE 18 is data of catch and effort.

Subsistence Fishery

TABLE 19 lists the statistics from returned permits for this fishery. The number of permits issued for 1971 totaled 4,542 for the Upper Copper River and 29 for the Copper River Delta as compared to 3,487 and 32 in 1970. Of the total permits issued 3,213 were returned of which 572 fishermen were unsuccessful, and 924 were reported unused. Catch per individual fisherman was approximately 21.8 red salmon for a total reported catch of 37,517. Also harvested in this fishery were 1,373 king salmon.

Historical data of the upper Copper River subsistence fishery is presented in APPENDIX TABLE 8.

Escapements

Escapements to most spawning systems of the Copper River in 1971 were satisfactory and some increases were noted. The aforesaid fishermen's strike assisted the Department in obtaining these escapements. If fishing had occurred as scheduled in the regulations, early run populations may have suffered. Ice and low water temperatures persisted during the first two weeks of the season and the red salmon were reluctant to enter the river. Ice moving out of the river and rising water and water temperatures coincided with price settlements, and the early upriver run began moving up the river at approximately the same time the fishermen began fishing.

It was apparent from aerial surveys that most spawning populations were late in arriving on the spawning grounds. This again was more than likely due to low water temperatures.

Red salmon escapements in all delta systems, TABLE 20, are comparable to 1970 levels which were considered above average and very satisfactory. Improved escapements were noted in Tokun Lake, Salmon Creek, Clear Creek and Martin Lake. Surveys of the Bremner River system were attempted, but due to high, muddy water, counts could not be made.

Upper river red salmon escapements are estimated from tag and recovery indices obtained from fishwheels located just below Chitina. Aerial and ground counts are also made on selected systems on an annual basis. Estimates for these systems, TABLE 21, were higher than in 1970 and tag and recovery indices gave an escapement estimate of 486,641 red salmon.

Coho salmon escapement counts are attempted in most years, but adverse weather normally persists at this time of the year making yearly trend comparisons impossible. In 1971 aerial surveys were flown on two different occasions. During these surveys only the Martin River system, Clear Creek and the Martin River Slough area could be surveyed. Coho escapements into these systems were extremely good, and since they were flown early in the season, escapement counts were not made at the spawning peak. Many coho spawning streams are glacial in nature and counts of these systems cannot be made.

Special Projects

A lower river tag and recovery project has been attempted the past two years in an effort to obtain a population escapement estimate closer to the fishery. This would enable management biologists to relax or restrict the commercial fishery as justified from escapement estimates. This project has not been a success as yet. In 1970 low river conditions existed making fishwheel operation almost impossible, and in 1971 late river breakup, unusually high water and debris caused continual damage to the wheels, and every day repairs slowed down and, in some cases, halted the operation.

TABLE 22 shows the Copper River sockeye salmon catch by age class contribution by sex and week for 1971. Comparative age analysis of Copper River red salmon, 1965 through 1971, is given in TABLE 23.

TABLE 16. Copper River red salmon weekly catch, 1971.

Week No.	Total Catch	Total Pounds	Average Wt./Fish	Number Boats 1/	Average No. Fish/Boat
21	121 *	852	7.04	2	60.5
22	120 *	750	6.25	1	120
23	273,975 **	1,740,810	6.3	405	676
24	87,102 **	570,493	6.5	438	199
25	63,474	425,514	6.7	386	164
26	54,456	373,118	6.8	259	210
27	42,921	285,819	6.7	258	166
28	31,585	215,826	6.8	210	150
29	24,505	165,014	6.7	99	248
30	19,109	126,622	6.4	79	242
31	11,600	44,695	6.4	71	163
32	6,520	40,669	6.2	72	91
33	1,304	8,201	6.2	78	17
34	158	948	5.9	38	4
35	51	360	7.0	156	.3
36	4	25	6.5	173	-
TOTAL	617,011	4,029,716	6.5		

1/ 150 fathoms of drift gill net gear per boat.
* Fishermen on strike.
** Severe storms. Approximately as many fish caught were lost in gear and swamped boats.
*** Final catch summary by Statistical Section lists 616,801 reds.

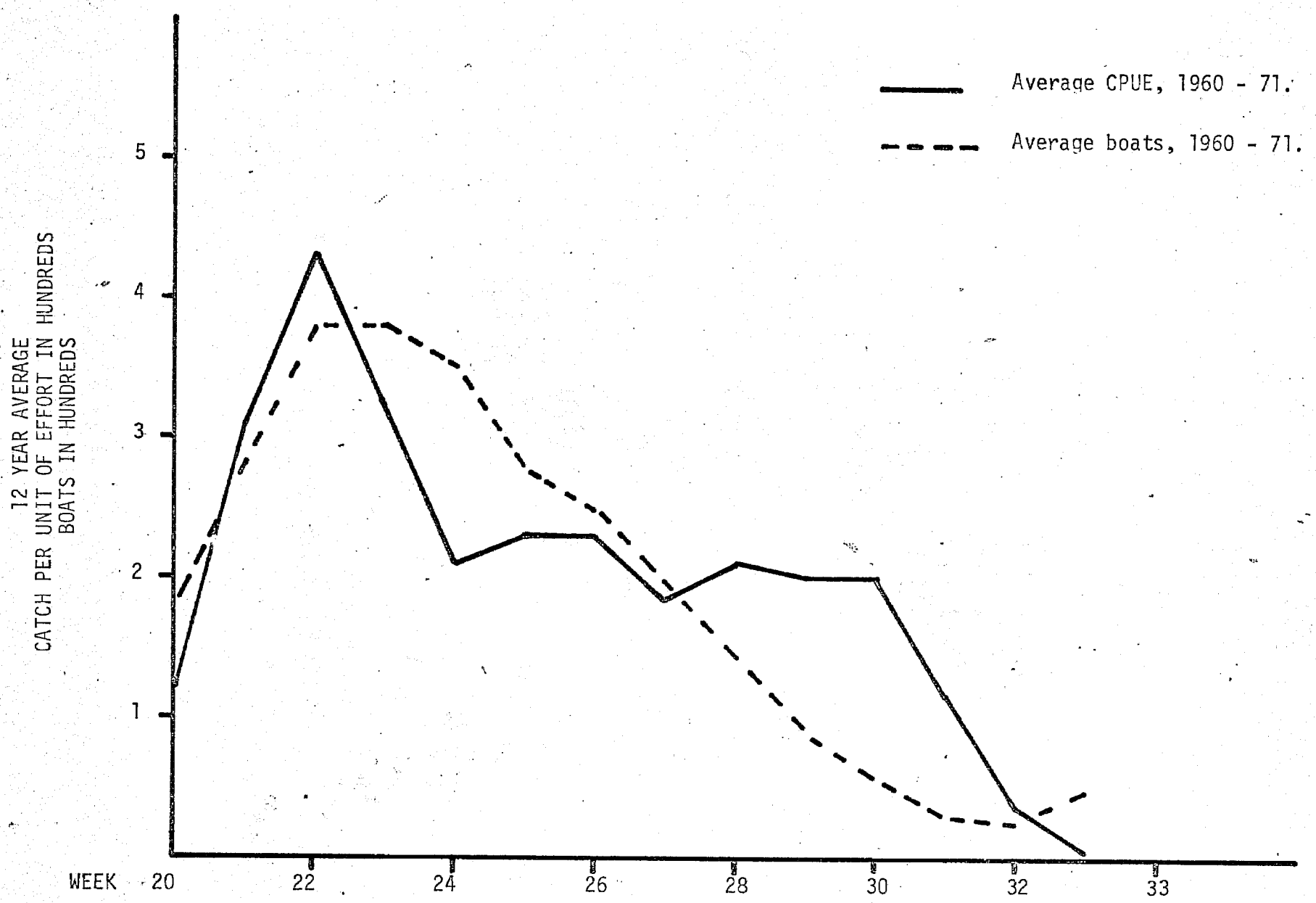

FIGURE 5. Average 12 year catch per unit of effort of the Copper River red salmon commercial catch.

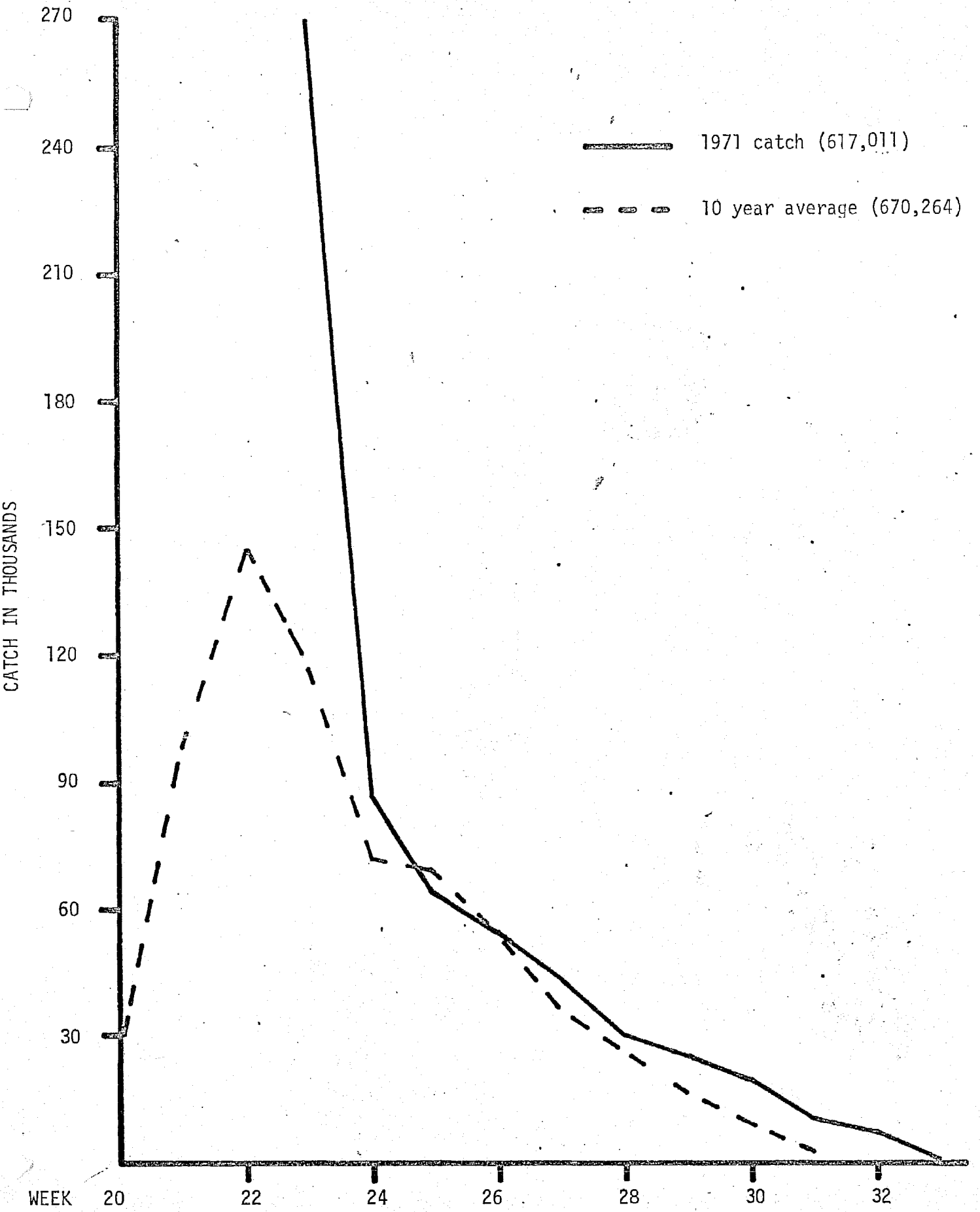

FIGURE 6. Copper River 1971 red salmon catch as compared to a 10 year average. No fishing during weeks 20 - 23 in 1971.

TABLE 17. Copper River king salmon weekly catch, 1971.

Week No.	Total Catch	Total Pounds	Average Wt./Fish	Number Boats 1/	Average No. Fish/Boat
21	4	88	22	2	2
22	-				
23	7,724	197,854	26	405	19
24	5,681	155,684	27	438	13
25	1,775	57,126	32	386	5
26	779	25,806	33	259	3
27	121	3,852	32	258	.4
28	54	1,356	25	210	.2
29	11	174	16	99	-
30	6	167	28	79	-
31	1	10	10	71	-
32	1	20	20	72	-
33	1	33	33	78	-
35	2	60	30	156	-
TOTAL	16,160*	442,230	27.4		

1/ 150 fathoms of drift gill net gear per boat.
* Final catch summary by Statistical Section lists 16,486 kings.

TABLE 18. Copper River coho salmon weekly catch, 1971.

Week No.	Total Catch	Total Pounds	Average Wt./Fish	Number Boats 1/	Average No. Fish/Boat
24	8	52	6.5	438	-
25	6	35	5.8	386	-
26	10	60	6.0	259	-
27	5	29	5.5	258	-
28	12	80	6.6	210	-
29	2	14	7.0	99	-
30	123	704	5.7	79	1.5
31	1,994	11,096	5.5	71	28.0
32	7,456	46,401	6.2	72	103.5
33	15,910	103,463	6.5	78	203.9
34	3,464	23,681	6.8	38	91.1
35	38,791	324,209	8.3	156	248.6
36	48,720	448,005	9.2	173	268.4
37	50,277	488,104	9.7	164	306.5
38	32,900	361,148	10.9	149	220.8
39	8,717	95,279	10.9	88	99.1
40	389	4,279	11.0	15	25.9
TOTAL	208,784*	1,906,639	9.1		

1/ 150 fathoms of drift gill net gear per boat.

* Final coho salmon catch summary by Statistical Section lists 208,915.

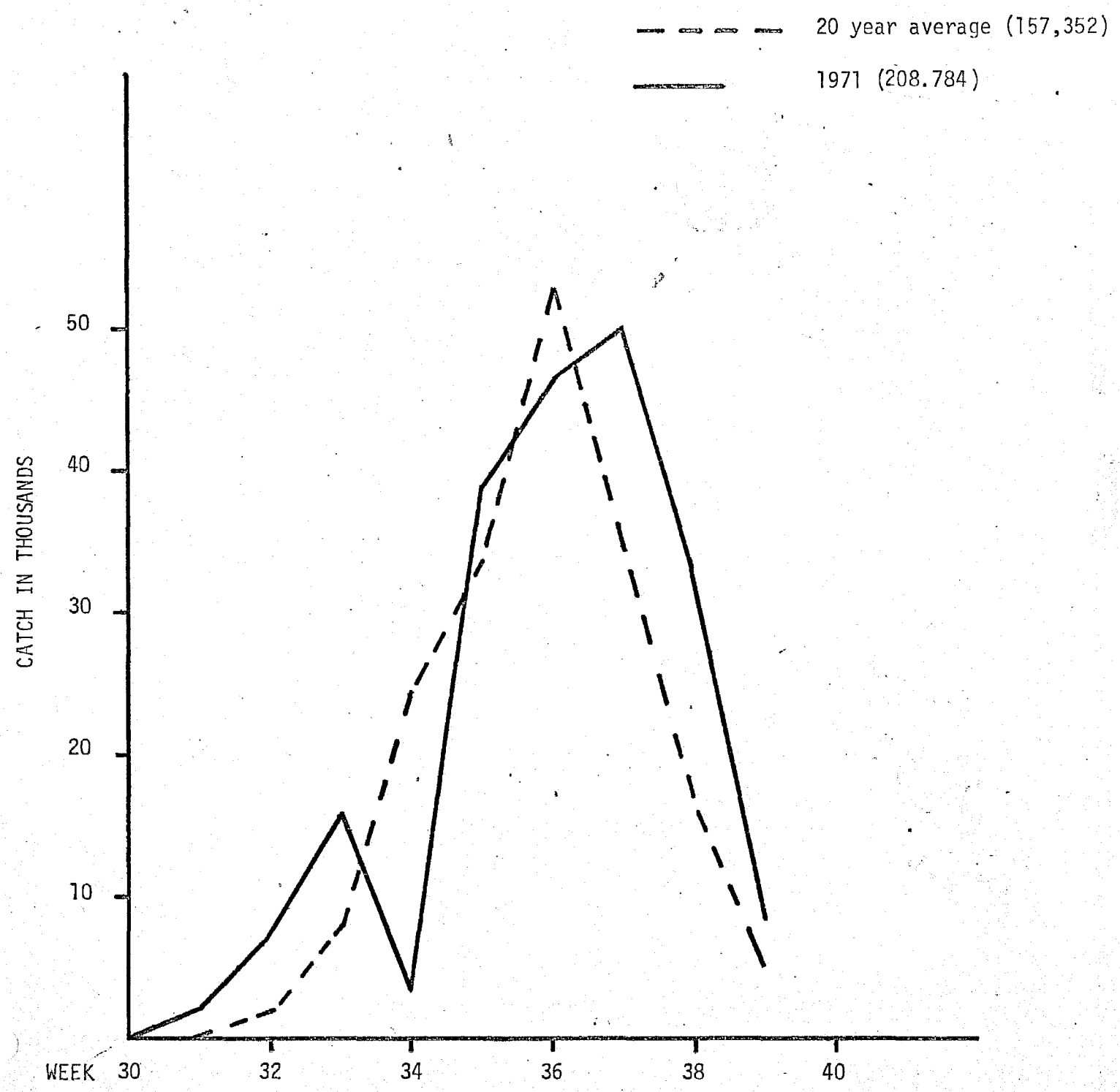

FIGURE 7. Copper River 1971 coho salmon catch as compared to a 20 year average.

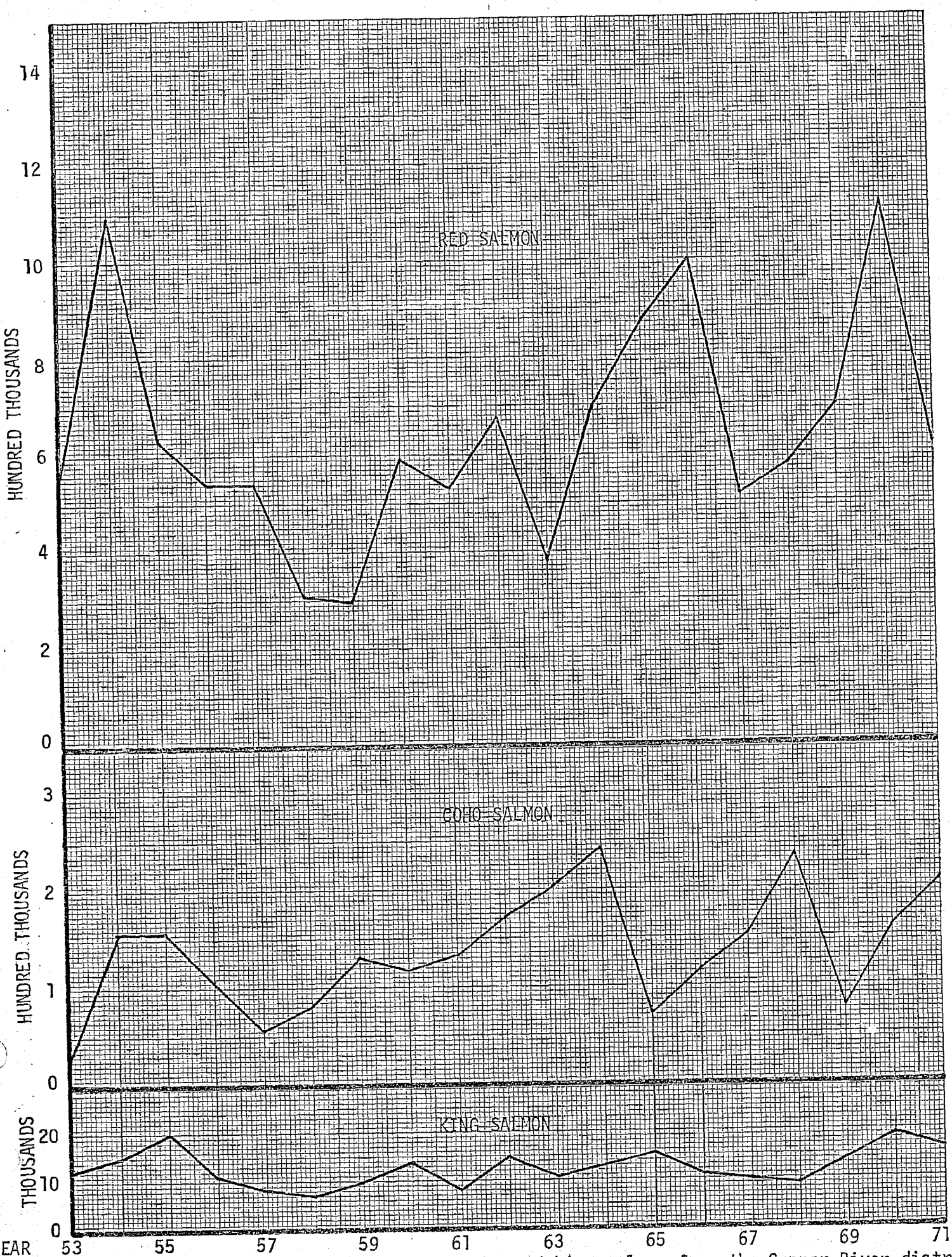

FIGURE 8. Commercial catches of red, coho and king salmon from the Copper River district from 1953 to 1971

TABLE 19. Subsistence fishing permits issued, and catch from returns by area and gear, 1971.

Area	Number Permits Issued	Number Permits Returned	Type of Gear	Unsuccessful Fishermen	Unused Permits	Catch				
						Reds	Kings	Cohos	Pinks	Other 2/
Upper Copper River	121	77	Fish Wheel	2	22	5,065	125	4		2
Upper Copper River	253	168	Fish Wheel & (or) Dip Net	28	41	4,305	147	20		
Upper Copper River	4,168	2,942	Dip Net	530	852	28,115	1,091	339		50
Prince William Sound	3	2	Gill Net		1				46	
Copper River Delta	29	26	Gill Net	12	9	32	10	4		
3/ Eyak & McKinley Lakes	3	3	Gill Net		1					81
TOTAL	4,577	3,218		572	926	37,517	1,373	367	46	133

1/ Compiled from reports received through February 18, 1971.
2/ Includes whitefish, lamprey, greyling and Dolly Varden.
3/ Whitefish permits.

TABLE 20. Estimated red salmon spawning escapements to lower Copper River delta area, 1971.

System	Estimated Escapement 1/	
Eyak Lake	5,800	2/
Hatchery Creek	567	
McKinley Lake	1,700	
Salmon Creek	9,000	
25.6 Mile Creek	500	
27 Mile Creek	1,500	
39 Mile Creek	8,270	
Goat Mountain Creek	600	
Pleasant Creek	150	
Deadwood Lake	turbid	
Tokun Lake	23,000	
Martin Lake	4,500	
Little Martin Lake	3,000	
Pothole Lake	2,000	
Ragged Point Lake	3,000	
Martin River Sloughs	5,000	
Martin Creeks	5,000	
TOTAL	73,587	

1/ Early counts. Unable to survey at a later date due to adverse weather and unavailability of survey aircraft.
2/ From sonar counter.

TABLE 21. Estimated spawning escapement of red and king salmon to upper Copper River, 1971. 1/

System	Red Salmon Estimated Escapement		King Salmon Estimated Escapement
Bremner Drainage	no survey		
Peninsula Lake	no survey		
Little Bremner River	no survey		
Salmon Creek	no survey		
Tiekel Lake	no survey		
Chitina Lakes	no survey		
Long Lake	2,000		
Canyon Creek	no survey		
Tana Lake	no survey		
Tana Lake Outlet	no survey		
Nizina River	no survey		
Tanada Lake	4,093		
Copper Lake	15		
Suslota Lake	4,500		
Sinona Creek	no survey		
Mentasta Lake & Fish Creek	3,195		
Slana River	1,850		
Ahtell Creek	no survey		
Indian Creek	no survey		
Mankomen Lake	0		
East Fork Chistochina	0		512
Gulkana River	11,150	15,200	
Gunn Creek	950	65	
Fish Lake	25,000 +	4125	
Summit Lake	0	2	
Summit Lake to Paxson	8,850		
Paxson, Mud Creek, Mud Lake	5,300	500	
Paxson Lake Outlet	3,400	1000	
Middle Fork	500	5200	110
Swede Lake	2	350	
Dickey Lake	170	100	
West Fork Gulkana	5,600	2700	457 65
Oldman Lake & Mendeltna Creek	870		56
Tazlina Lake	0		
Kiana Creek	2,115		81
St. Anne Creek	25,100		4
Klutina Lake	1,660		
Mahlo Creek	12,400		
Manker Creek	0		30
Tonsina Lake	500		4
Grayling Creek	0		45
Little Tonsina River	0		
TOTAL	119,220		797

1/ Derived from aerial and/or ground counts.

Table 22. Copper River Sockeye Salmon Catch by Age Class Contribution by Sex and Week - 1971.

Week	Sample	AGE CLASS 3_1	3_2	4_1	4_2	5_2	5_3	6_2	6_3	Total
23	%			1.1	.6	44.0	24.0	.6	9.1	20.6	175
5/30-6/5	Catch			3,014	1,644	120,549	65,754	1,644	24,931	56,439	273,975
	Sample										
24	%	.2		.2	.2	2.9	1.2	39.6	37.1	.2	.2		7.4	10.8	591
6/6-6/12	Catch	174		174	174	2,526	1,045	34,493	32,315	174	174		6,445	9,407	87.102
	Sample										
25	%		.2	.2	.2	5.0	2.0	38.7	41.3	.4		.2	.2	5.4	6.2	538
6/13-6/19	Catch		127	127	127	3,174	1,269	24,565	26,215	254		127	127	3,427	3,935	63,474
	Sample										
26	%		.7		.4	4.5	2.8	43.3	40.3	.4	.2	.4	.8	3.6	2.6	575
6/20-6/26	Catch		381		218	2,451	1,524	23,579	21,946	218	109	218	435	1,960	1,417	54,456
	Sample										
27	%		.3		.5	6.8	6.0	40.3	43.5	.5		.3		.9	.9	424
6/27-7/3	Catch		129		215	2,919	2,575	17,297	18,670	215		129		386	386	42.921
	Sample										
28	%		2.1		.4	7.7	3.4	38.9	43.6	.9				1.7	1.3	234
7/4-7/10	Catch		663		126	2,432	1,074	12,287	13,771	284				537	411	31,585
	Sample										
29	%		.5	.3		20.6	17.2	30.6	29.0	.5	.5			.3	.5	389
7/11-7/17	Catch		122	74		5,048	4,216	7,499	7,106	122	122			74	122	24,505
	Sample										
30	%			2.3		9.4	9.4	39.5	25.6					11.5	2.3	43
7/18-7/24	Catch			440		1,796	1,796	7,548	4,892					2,197	440	19,109
	Sample										
31	%					32.5	23.5	23.5	17.6		2.9					34
7/25-7/31	Catch					3,770	2,726	2,726	2,042		336					11,600

(continued)

Table 22. Copper River Sockeye Salmon Catch by Age Class Contribution by Sex and Week - 1971 (continued).

		AGE CLASS														
Week	Sample	3_1	3_2	4_1		4_2		5_2		5_3		6_2		6_3		Total
32	%					12.5	12.5	18.8	18.8	6.1				18.8	12.5	16
8/1-8/7	Catch					815	815	1,226	1,226	397				1,226	815	6,520
TOTALS	%		.2	.1	.1	4.5	3.0	41.1[1]	31.6[1]	.5	.1	.1	.1	6.7	11.9	3,019
	Catch	174	1,422	815	860	27,945	18,684	251,769	193,938	3,308	741	474	562			615,247
SEXES	%		0.2	0.2		7.5		72.7[1]		0.6		0.2		18.6		
COMBINED	Catch	174	1,422	1,675		46,629		445,707		4,049		1,036		114,555		615,247

1/ Rounding discrepancy

TABLE 23. Comparative age analysis of Copper River red salmon, 1965 - 1971.

Year	Age Class by Percent									Sex Composition By Percent	
	3_1	3_2	4_1	4_2	5_1	5_2	5_3	6_2	6_3	♂	♀
1965			6.0	15.0		58.0	3.0		19.0		
1966	.1	.2	3.4	7.3	.6	84.3	.6	.1	3.3	44.38	55.62
1967		.08	.79	11.84		85.79	.45	.26	.79	43.34	56.66
1968		.26	1.05	34.32		62.43	.46	.46	.98	46.82	53.08
1969			.07	27.96	.03	71.58	.19	.09	.07	62.3	37.7
1970		.4	.4	21.5		72.9	2.9	.6	1.2	60.0	40.0
1971	.1	.4	.4	12.1		85.1	.4	.3	.7	51.2	48.8

PRINCE WILLIAM SOUND GENERAL DISTRICTS

INTRODUCTION

The Prince William Sound area is divided into six major districts principally for the management of a purse seine fishery for pink and chum salmon. The Sound is further divided into three smaller districts for the management of small, red salmon runs which are taken by set gill nets, drift gill nets and purse seines, FIGURE 1.

Fishing seasons are varied for each fishery and timed to intercept the various stocks. The Coghill - Unakwik district fishery for red salmon is the earliest, beginning in late June and ending about mid-July for drift gill nets. Purse seine fishing in these districts coincides with drift gill net fishing but is extended past the mid-July gill net closing date in order to harvest later runs of pink and chum salmon. Fishing in the Eshamy district is conducted by both drift and set gill nets. The season for this late red salmon run usually begins in early July and extends into September. Purse seines fishing in the Southwestern district in July and August catch about 30 percent of the Eshamy reds before they enter the gill net fishery. The purse seine fishery is conducted in all Prince William Sound districts, except Eshamy. Purse seining usually begins in early or mid-July, (late July in some years), depending upon the strength of early pink salmon runs, and usually extends into the first or second week of August.

For several years the weekly fishing time has been five days per week, 6:00 a.m. Monday until 6:00 a.m. Saturday, but in 1970 the weekly fishing time was changed to 6:00 a.m. Monday until 9:00 p.m. Friday.

A summary of Prince William Sound fishing seasons from 1952 to 1971 is shown in TABLE 24.

General Districts, Purse Seine Fishery

The general purse seine season opened as scheduled on July 12 and produced the largest pink salmon catch since 1947, APPENDIX TABLE 9, FIGURE 9. Some purse seine fishing was done during the early Coghill - Unakwik red salmon season when 69 units of gear reported catches, but the bulk of the fishing effort took place after the regular seine season opened on July 12. During the peak of the season 316 purse seine boats participated in the fishery in all purse seine fishing districts, except the Montague district which was closed to fishing.

Salmon runs entering Prince William Sound in 1971 acted differently than normal (particularly the early run) and tended to stay off shore and were as much as three weeks late entering spawning streams. During the first three weeks of the general season several boats were making hauls in open waters with reported success. The unusual salmon activity was apparently the result of cold water due to late spring conditions and stream temperatures that ranged as much as 10° to 15° below normal. It was not until late July and early August that the salmon began to follow normal migrations and could be observed along the various beaches.

TABLES 25, 26, 27 and 28 show a harvest of 7,355,658 pink salmon, 565,524 chums, 56,855 reds, 26,219 cohos and 1,136 kings. APPENDIX TABLE 10 shows the Prince William Sound salmon case pack from inception of the fishery, 1889 to 1971. Presented in graph form in FIGURE 10 is the commercial case pack from 1920 to 1971.

Subsistence Fishery

Each year some salmon are taken by permit for subsistence purposes from Prince William Sound. In 1971 a total of three permits were issued of which one reported a catch of 46 pinks, TABLE 19. One permit was returned unused.

1971 Prince William Sound Pink Salmon Forecast

The returning run of 9,475,265 pink salmon to Prince William Sound in 1971 was 35 percent above the mean estimated forecast of 6,200,000 and 22 percent above the upper range of the forecast. The significant error is probably the result of several factors including the change in sampling personnel and a better than average survival from fry to returning adult. The Prince William Sound pink salmon forecast has, however, continued to successfully demonstrate the value of this information as a tool of management. District closures, closures of streams within districts, openings of districts and opening of specific areas have been made each year based on returning run forecasts. These season changes have been instrumental in obtaining desirable or improved escapements and harvests, and, in general, have shown a high degree of reliability. Comparable forecast data is shown in TABLE 29.

Escapement

Weekly aerial spawning escapement counts and periodic ground surveys were made on selected streams to determine the progress of escapements and to provide estimates for calculating season escapements for reds, pinks and chums. Summaries of these live counts in streams are shown in TABLES 30a - 30h, 31, 32a - 32g, 33 and 34. Surveys were conducted weekly from early July until late September including a total of 209 pink salmon spawning streams and 128 chum streams.

Spawning escapements of pink salmon were generally well distributed and in individual streams ranged from poor to excellent. The pink salmon spawning escapement of 2,115,440 is the largest recorded escapement since 1961 and reflects, in part, the unanticipated large return of pinks to the northern Montague Island streams. The estimated pink salmon escapement of 337,540 to the Montague district is the largest recorded for the district since 1960 and compares to the previous high estimate of 318,000 in 1962. Montague district has been closed to commercial fishing since 1967.

Historical escapement counts by species are given in APPENDIX TABLE 11, and FIGURE 11 graphically shows estimated salmon spawning escapement in Prince William Sound from 1927 to 1971.

Age Analysis

Chum salmon scale samples were taken from both the commercial catch and spawning streams of Prince William Sound for subsequent age analysis. A total of 1,866 samples were taken from commercially caught chum salmon, TABLE 35,

which gave the following age composition for combined sexes: 4.40 percent 3's; 92.28 percent 4's; and, 3.32 percent 5's. Age composition from 1,527 chums from spawning streams were as follows: 3.01 percent 3's; 93.65 percent 4's; and, 3.34 percent 5's, TABLE 36.

Shrode Creek Weir

In 1971 a field crew was assigned to the Shrode Creek fish weir to make counts of fish passage and to make observations of the adequacy of the fish passage facilities.

The crew arrived at Shrode Creek on August 2 and began observations on August 3. Daily counts of salmon were continued through September 16 with a total of 300 reds, 34 coho, 7 chum, 2 kings and 12,616 pink salmon being counted, TABLE 37.

Because of the unusual weather conditions and below normal stream temperatures the salmon run was late in arriving and did not attempt to migrate up the stream until August 31; whereas, the normal upriver migration usually begins during the period mid-July to late July. Only about 17 percent of the pink salmon spawning escapement spawned above Shrode Creek falls in 1971 which is about the opposite of normal for odd-year runs. This was due to a combination of factors including cold stream temperatures, weakened condition of individual salmon because of the long stay in the intertidal area and inexperienced field personnel.

TABLE 38 gives Shrode Creek weir station weather data for 1971.

Historical spawning escapements and weir counts are shown in APPENDIX TABLE 12.

TABLE 24. Prince William Sound summary of fishing seasons, 1951 - 1971.

Year	GENERAL AREAS: Opening Date		Closing Day		Season Extensions	Special Closures	Weekly Closures	DISTRICT OPENINGS AND CLOSURES: Eshamy Open	Eshamy Closed	Coghill - Unakwik Open	Coghill - Unakwik Closed
1951	0600	7/1	0600	8/1	None	8/1-6	48 hrs.		8/22		None
1952	0600	8/4	1800	8/30	None	None	48 hrs.		8/22		None
1953	0600	7/13	1800	8/8	8/5 - 8	None	48 hrs.		8/22		None
1954		CLOSED					48 hrs.		8/22		None
1955		CLOSED					48 hrs.		8/22		None
1956	0600	7/10	0600	8/6	None	None	48 hrs.		8/22		None
1957	0600	7/10	0600	8/5	None	8/5 - 10	48 hrs.		8/22		None
1958	0600	7/10	0600	8/6	None 1/	8/6 - 9	48 hrs.		CLOSED		None
1959		CLOSED							CLOSED		None
1960	1201	7/11	1800	8/3	None	7/4 - 10 2/	72 hrs.		CLOSED		None
1961	Eastern		Southeastern 3/					7/1	8/18	6/12	7/14
	0600	8/1	1800	8/14							
	Montague 3/										
	0600	8/8	1800	8/14							
1962	General 4/										
	0600	7/9	2400	8/13			119 hrs. 5/	7/2	8/15	6/18	7/14
1963	0500	7/1	1900	8/19 5/					CLOSED	6/18	7/14
1964	0600	7/13	0600	8/15 5/	8/16 - 21		48 hrs.		CLOSED	6/18	7/14
1965	0600	7/5	1800	8/3 5/	None		48 hrs.		CLOSED 5/	6/21	7/17
1966	0600	7/18	1800	8/12 5/	None		48 hrs.	7/4	8/19	6/20	7/16
1967	0600	7/24	1800	8/4 5/	None		48 hrs.		CLOSED	6/20	7/22
1968	0600	7/11	1800	8/8 5/	5/		5/		CLOSED	6/20	7/16
1969	0600	7/14	1800	8/8	None		48 hrs.	7/7	8/22	6/20	7/12
1970	0600	7/13	2100	8/6	None		57 hrs.	7/7	8/14	6/22	7/17
1971	0600	7/12	1200	8/16	None		57 hrs.		CLOSED	6/21	7/16

1/ Season closure by time table released to allow all gear to fish until closure 8/6.
2/ Fishing days by gear time table during season. On 8/2-3 fishing allowed 12-hour day. Fishing closed 1800 8/3.
3/ 12-hour fishing day.
4/ 14-hour fishing day.
5/ Refer to special regulatory changes by field announcement. For fishing seasons prior to 1951 refer to 1964 Annual Repo

TABLE 25. Prince William Sound pink salmon purse seine weekly catch, 1971. 1/

Week No. 2/	Total Catch	Total Pounds	Average Weight	No. Units of Gear 4/	Average No. Fish/Boat	No. Fishing Days/Week 3/
26	66	207	3.14	12	5.5	5
27	1,482	5,126	3.46	31	47.8	5
28	12,919	45,237	3.50	69	187.2	5
29	261,169	932,487	3.57	239	1,092.8	5
30	631,348	2,179,736	3.45	283	2,230.9	5
31	1,665,210	5,627,770	3.34	309	5,389.0	5
32	2,682,748	9,564,901	3.57	316	8,489.7	5
33	1,898,469	6,973,534	3.67	264	7,191.2	5
34	202,247	765,773	3.79	115	1,758.7	.5
TOTAL *	7,355,658	26,094,771	3.55		26,392.8	40.5

1/ In addition a total of 1,136 king salmon were taken.

2/ Week 26 through 28 catches from early Coghill - Unakwik season.

3/ Fishing 24 hours per day except Friday when fishing was allowed until 9:00 p. m. and Monday when fishing started at 6:00 a. m.

4/ This includes some duplicates of vessels that fished and delivered in more than one area during some weeks.

* Preliminary.

TABLE 26. Prince William Sound chum salmon purse seine weekly catch, 1971.

Week No. 1/	Total Catch	Total Pounds	Average Weight	No. Units of Gear 3/	Average No. Fish/Boat	No. Fishing Days/Week 2/
26	460	3,062	6.66	12	38.3	5
27	3,828	27,699	7.24	31	123.5	5
28	14,662	107,588	7.34	69	212.5	5
29	88,899	628,933	7.07	239	372.0	5
30	98,173	693,628	7.07	283	346.9	5
31	149,898	1,098,931	7.33	309	485.1	5
32	133,355	990,077	7.42	316	422.0	5
33	72,090	511,915	7.10	264	273.1	5
34	4,159	32,597	7.84	115	36.2	.5
TOTAL *	565,524	4,094,430	7.24		2,309.6	40.5

1/ Week 26 through 28 catches from early Coghill - Unakwik season.

2/ Fishing 24 hours per day except Friday when fishing was allowed until 9:00 p. m. and Monday when fishing started at 6:00 a. m.

3/ This includes some duplicates of vessels that fished and delivered in more than one area during some weeks.

* Preliminary.

TABLE 27. Prince William Sound red salmon purse seine weekly catch, 1971.

Week No. 1/	Total Catch	Total Pounds	Average Weight	No. Units of Gear 3/	Average No. Fish/Boat	No. Fishing Days/Week 2/
26	253	1,721	6.80	12	21.1	5
27	1,547	10,958	7.08	31	49.9	5
28	7,674	54,416	7.09	69	111.2	5
29	18,095	128,250	7.09	239	75.7	5
30	15,181	104,975	6.91	283	53.6	5
31	7,492	52,064	6.95	309	24.2	5
32	4,276	30,109	7.04	316	13.5	5
33	2,260	16,070	7.11	264	8.6	5
34	77	521	6.77	115	0.7	.5
TOTAL*	56,855	399,084	7.02		258.5	40.5

1/ Week 26 through 28 catches from early Coghill - Unakwik season.

2/ Fishing 24 hours per day except Friday when fishing was allowed until 9:00 p. m. and Monday when fishing started at 6:00 a. m.

3/ This includes some duplicates of vessels that fished and delivered in more than one area during some weeks.

* Preliminary.

TABLE 28. Prince William Sound coho salmon purse seine weekly catch, 1971.

Week No. 1/	Total Catch	Total Pounds	Average Weight	No. Units of Gear 3/	Average No. Fish/Boat	No. Fishing Days/Week 2/
27	16	103	6.44	31	0.5	5
28	109	640	5.87	69	1.6	5
29	1,923	10,692	5.56	239	8.0	5
30	4,405	31,346	7.12	283	15.6	5
31	6,368	47,028	7.39	309	20.6	5
32	7,936	67,098	8.45	316	25.1	5
33	5,214	44,625	8.56	264	19.8	5
34	248	2,101	8.47	115	2.2	.5
TOTAL*	26,219	203,633	7.77		93.4	35.5

1/ Week 26 through 28 catches from early Coghill - Unakwik season.

2/ Fishing 24 hours per day except Friday when fishing was allowed until 9:00 p. m. and Monday when fishing started at 6:00 a. m.

3/ This includes some duplicates of vessels that fished and delivered in more than one area during some weeks.

* Preliminary.

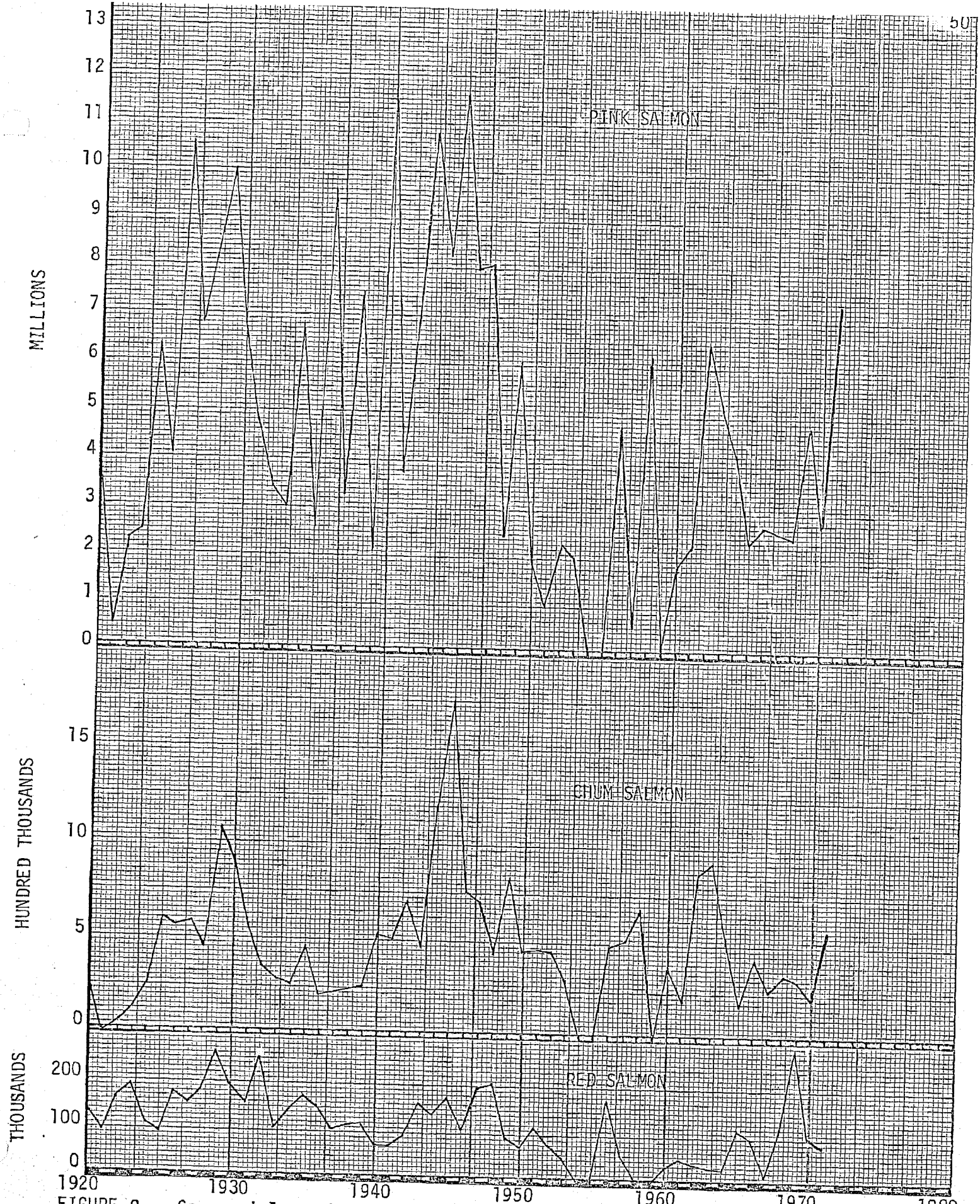

FIGURE 9. Commercial catches of pink, chum and red salmon in Prince William Sound from 1920 to 1971. Catches in years 1921, 1954, 1955 and 1959 are not indicative of abundance due to restrictions of economic or regulatory nature.

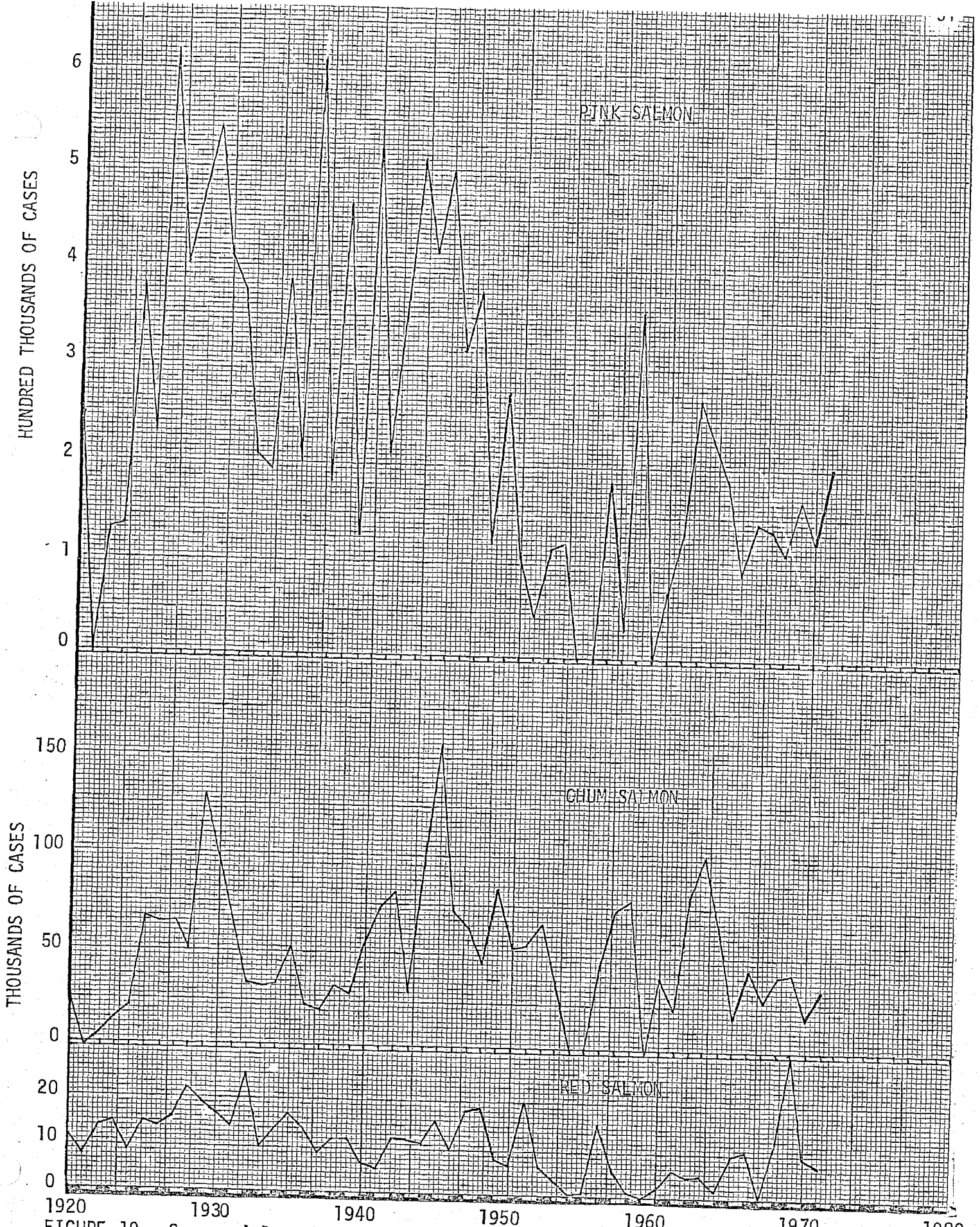

FIGURE 10. Commercial case packs of pink, chum and red salmon in Prince William Sound from 1920 to 1971. Catches in years 1921, 1954, 1955 and 1959 are not indicative of abundance due to restrictions of economic or regulatory nature.

TABLE 29. Comparison of Prince William Sound pink, chum and red salmon run forecasts showing the percent of error, 1962 - 1971.

	Pink			Chum			Red		
Year	Mean Forecast	Return	Percent Error	Mean Forecast	Return	Percent Error	Mean Forecast	Return	Percent Error
1962	8.9	8.7	+ 1.1						
1963	5.0 1/	6.6	-21.2						
1964	6.1	6.0	+ 1.1	1.00	0.92	+ 8.8			
1965	4.2	3.4	+19.4	0.73	0.39	+46.6			
1966	6.3	4.0	+36.5	0.58	0.65	-10.7			
1967	3.3	3.8	-13.2	0.44 2/	0.45	- 2.2			
1968	3.1	3.5	-11.4	0.68	0.55	+19.1			
1969	5.8	5.9	- 1.1	0.44	0.48	- 8.3	0.19	0.18	+ 4.12
1970	4.4	3.8	+14.0	0.34	0.33	+ 3.0	0.09	0.04	+56.00 *
1971	6.2	9.5	-34.57	0.76	0.74	- 2.2			
1972	1.7			0.80					

1/ Weighted fry densities to include upstream production indicated 5.8 million, or an error of -13.2 percent.
2/ Using expanded estimate of 4 year return to total.
* Estimated.

TABLE 30a. Eastern District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/.

Stream No. 5/	Stream or Bay	Week Ending 7/10	7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
11	Humpy Creek				4270	3200	1490		3370		1040		0	8230
35	Koppen Creek	200		7000	4730	4500	4000		11880		72230		4000	103420
36	Sheep River	0		40		150	300				16650		2200	23380
46	Comfort Creek			0	0	50	30		2050		630		0	2220
48	Beartrap River	0		0	60	800	700		5630		1330		0	6490
51	Olsen Creek	0		3500		7650	4130		9610		3140		0	20010
52	Control Creek	0		1500	6260	4750	4410		3300		2040		0	12620
56	St. Matthews Cr.	0		0	760		520		2810		4300			8160
76	Irish Creek				300	700	1760		12910		6050			18330
80	Whalen Creek	100		100	230	150	120		21270		13030		50	29260
83	Keta Creek					0	0		2620		22800			26770
87	Sunny River					0	0		280		10800		1500	11270
89	Fish Creek	0		600	750	600	3130		12100		15140			28730
93	Fish Bay	0		0	30	100	930		2060		770			2700
99	Lagoon Creek	0		0		100	910		2760		2530			5260
115	Millard Creek	0		20		100	170		7000		2300		800	5610
116	Duck River	0		0		500	800		7100				28500	92800
117	Indian Creek	100		7000		8000	10100		5400		3570		0	24270
121	Levshakoff Creek	0		1100	4870	1800	2210		1380		470		0	6130
123	Gregorieff Creek	0		600	3400	2200	1150		1070		1230		0	5260
137	Lowe R. & tribs.			12070			13900							35310
143	Siwash Creek			1000	13040		4170			120				13070
153	Stellar Creek	0		3000	4530	6500	2920		7250			1200		10130
	Robe River			4500	350	700	800	500						3800
Other Streams 2/		0	1780	4670	4660	3840	4670	6590	8390	7410	5650	2810	410	20520
DISTRICT TOTALS 3/ (51 Streams)		400	26480	48800	76540	76890	63320	107890	142040	281330	260050	196210	53060	523750

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, others calculated from stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

E 30b. Northern District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/.

am 5/	Stream or Bay	Week Ending 7/10	7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
	Long Creek			0	0		20		1290					2130
	Vanishing Creek			0	0		100		1770					3370
	Backyard Creek			0	0	0	300		7230					10610
	Granite Creek			0	0	0	0		2150			0		3660
	Cedar Creek			0	0	0	2710		9650			0		13340
	Wells River		0	18000	33000	40000	40610		17000			0		77440
	Cannery Creek			0	0	0	10000			5910		1400		11330 4/
259	Jonah Creek			0	0	1600	15000			27000				28280 4/
	Siwash Creek		0	0	0	0	310			3230				5620
	Black Bear Creek			0	150	500	10			3090				3540
r Streams 2/			0	0	300	500	300	800	1400	1140	750	350		2220
RICT TOTALS 3/				18000		42660		82400		76370		10250		161540
14 Streams)			0		33450		69360		82490		46250		2000	

Ground counts underlined.
From records maintained on small streams which had a total of less than 2,000.
Contains interpreted data where surveys lacking on certain weeks.
Stream life factor 4.0 weeks, others calculated from stream life factor of 2.5 weeks.
Stream numbering revised in 1962.

TABLE 30c. Coghill District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/.

Stream No. 5/	Stream or Bay	Week Ending 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
322	Coghill River	0	1600	500000	500000	500000					100000		500000* 4/
Other Streams 2/			0	0	0	30			2300				2370
DISTRICT TOTALS 3/ (9 Streams)		0	1600	500000	500000	500030	500600	401200	302300	201200	100600	50000	502370

TABLE 30d. Northwestern District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/

Stream No. 5/	Stream or Bay	Week Ending 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
421	Mill Creek			0	0	600			610		2000		3560
430	Meacham Creek	0	0	0	200	100			1490		200		3320
432	Swanson Creek	0	0	0	900	1400			9630		4500		14770
435	Logging Camp Creek		0	0	0	0			1120				2130
469	Wickett Creek		0	0	0	100			1880				2310
476	Shrode Creek		0	0	0	0						68000	72660**
479	Culross Creek		0	0		310			1840				3820
480	Mink Creek		0	100	400	300	400		1700				3480
Other Streams 2/					100	1370	1920	2580	3100	4600	1380	300	6110
DISTRICT TOTALS 3/ (22 Streams)		0	0	100	1600	4180	7520	14280	21370	30600	13080	6000	112160

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, others calculated from stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.
* Total estimated from aerial counts in Coghill Lake.
** Total equals aerial estimate of 60,000 made on 9/25 plus weir count of 12,660 above falls. Not included in weekly district totals.

TABLE 30e. Eshamy District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/.

Stream No. 5/	Stream or Bay	Week Ending 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
511	Eshamy River				20	50	100	1000	1520	1300	420	100	6000*
Other Streams 2/													1800
DISTRICT TOTALS 3/ (5 Streams)					20	50	100	1000	1520	1300	420	100	7800

TABLE 30f. Southwestern District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/

Stream No. 5/	Stream or Bay	Week Ending 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
603	Ewan Creek			0	100	0	10		1790		670		5000**
604	Erb Creek	0		0	0	2000							2090
608	Jackpot River			0	0	0	360		2100		350		5600
610	Kompkoff River			0	600	800	1530		5660		600		2200
613	Jackson Creek			0	0	0	0		6440		1870		7000
621	Totemoff Creek			0	0	100			7540		12380		7320
630	Bainbridge Creek			0	0	0			1750				18210
633	Pablo Creek			0	0	330			4320		980		2900
666	O'Brien Creek			0	20	1580			1140		30		5050
672	Big Bay, Latouche Island			0	0	9100			10410		70		3720
673	Falls Creek			0	0	800			2580		250		23050
677	Hayden Creek			0	0	0	1710	5300	8100	7170	2590		3690
Other Streams 2/		0	0	0	0	0							10450
DISTRICT TOTALS 3/ (21 Streams)		0		0	720	14710	32610	48300	54830	45470	21790	14780	96280

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, others calculated from stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.
* Weir count plus estimate below weir. Weekly counts not included in district totals.
** Estimated. Not included in weekly district totals.

TABLE 30g. Montague District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1/.

Stream No. 5/	Stream or Bay	Week Ending 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
701	Trap Creek												3000*
707	MacLeod Creek												5300*
711	Quadra Creek												2000*
717	Glacier Bay, Montague Is.												2000*
739	Swamp Creek			0	0		20930		36720	20000			47060
740	Kelez Creek			0	0		5530		19850	8000			21750
741	Chalmers River			0	0	0	8860		41400	18000	1450		40200
744	Wilby Creek			0	0	0	5390		18370	2200	1000		14980
745	Wild Creek			0	0	0	2460		2340	1200	1280		4390
746	Schuman Creek			0	0	0	5110			2600	1870		8990
747	Cabin Creek			0	0	0	8410		45790	11000	9210		45760
748	Gilmore Creek			0	0	0	120		7150	1000	1180		6020
749	Shad Creek			0	0	0	5910		11710	4000	1050		13270
750	Port Chalmers				0					2200			6280
751	Stockdale Harbor			0						500			2340
752	Stockdale Creek			0	0					4500			9520
753	Stockdale Harbor			0	0					1200			3640
754	Dry Creek			0						2000			6120
758	Rocky Bay, Head			0	0					3000			7920
759	Rocky Creek			0	0	0				20000	11000		40800
760	Curran Creek				0	0				1500			4080
770	Udall Creek				0	0				1100	320		3040
771	McKernan Creek				0	0				850			2060
774	Rosswog Creek				0		990			2200	240		4220
775	Zaikoff Bay				0		60			1200	1200		2900
788	Green Creek						0			15000			18000
Other Streams 2/				0	0	0	1600	3900	6420	800	400	170	10250**
DISTRICT TOTALS (57 Streams)				0	0	0	95370	211100	272250	124050	61950	31970	337540

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, others calculated from stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962. * Estimated from single aerial survey. Not included in weekly district totals.
** Includes 11 streams not included in the weekly district totals.

TABLE 30h. Southeastern District, Prince William Sound, pink salmon spawning escapements, (live counts in streams), 1971 1

Stream No. 5/	Stream or Bay	Week Ending 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
806	Dog Salmon Creek						150		2000		1650		3080
808	Garden Cove				0		370						3110
810	Garden Cove				0		430		7220		1850		7680
812	Nuchek Creek	0		2500	5400	5100	34490		28390	24000	6310		56120
815	Constantine Creek	0			800	400	9500			18000	3830		24010
817	Deer Creek					1500				4500			7480
818	Juania Creek					3000				6500			14880
821	Brown Bear Creek					9300				6500			29200
827	Captain Creek					800	5640			5000			13900
828	Cook Creek					3000	12250			10000	5400		27740
829	King Creek					50	1200			1100			3420
830	Double Bay					1100				3000			7880
831	Double Creek					0	1460						3260
834	Hardy Creek				150	8800				5800			21700
835	Scott Creek				800	6700				6500			20480
836	Dan's Creek				0	2000				500			3740
837	Dan's Bay				500	2000	5000			2000			8000
838	Dan's Bay									1500			6180
843	Hawkins Cuttoff									2200			7040
844	Makaka Creek					1500	8060			6000			19140
847	Hawkins Creek					2800	15440			12000	470		30980
849	Rollins Creek					50				2500			5140
850	Canoe Pass					1000	2050			3300	120		7210
851	Zellisenoff Creek					800				8500	1730		10730
856	West Lagoon, Cedar Bay			0		100	200			2700			4180
857	East Lagoon, Cedar Bay			0		0	940			2500			5300
858				0		0				1900			3880
861	Bernard Creek			0		1000	11720			4520	120		17160
Other Streams 2/		0	0	0	0	60	100	350	750	1000	790	400	1380
DISTRICT TOTALS 3/ (30 Streams)		0	1100	3000	18760	53960	164500	236350	228360	152020	51620	25350	374000

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, others calculated from stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 31. Recapitulation of weekly pink salmon counts by districts, (live counts in streams), 1971 1/.

No. of Streams	District	WEEK ENDING 7/10	7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
51	EASTERN	400	26480	48800	76540	76890	63320	107890	142040	281330	260050	196210	53060	523750
14	NORTHERN - UNAKWIK		0	18000	33450	42660	69360	82400	82490	76370	46250	10250	2000	161540
9	COGHILL		0	1600	500000	500000	500030	500600	401200	302300	201200	100600	50000	502370 *
22	NORTHWESTERN		0	0	100	1600	4180	7520	14280	21370	30600	13080	6000	112160 *
5	ESHAMY					20	50	100	1000	1520	1300	420	100	7800 *
21	SOUTHWESTERN		0	0	0	720	14710	32610	48300	54830	45470	21790	14780	96280 *
57	MONTAGUE				0	0	0	95370	211100	272250	124050	61950	31970	337540 *
30	SOUTHEASTERN		0	1100	3000	18760	53960	164500	236350	228360	150020	51620	25350	374000
PRINCE WILLIAM SOUND TOTALS														
209		400	26480	69500	613090	640650	705610	990,990	1136760	1238330	858940	455920	183260	2115440

1/ Totals rounded to nearest 10 salmon.
* Totals include some streams not shown in weekly district totals.

TABLE 32a. Eastern District, Prince William Sound, chum salmon spawning escapements, (live counts in streams), 1971 1/

Stream No. 5/	Stream or Bay	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Totals
35	Koppen Creek	600	600		500	660		1740		2170		400	4910
36	Sheep River	0	0		0	240				2370		220	4010
48	Bear Trap River	100	1000	1580	1000	1500		3350		580			5560
51	Olsen Creek	170	500		850	1420		4600		310			5880
83	Keta Creek				0	0		600		8700		2500	8440
86	Head of Fidalgo											2000	4640
87	Sunny River				0	0		450		7100		7000	9900
116	Duck River	0	400		500	450		1190		250		1500	2840
127	Naumoff River	0	500		200							1900	2700
137	Lowe River & Tributaries					6020	7000						13310
Other Streams 2/		40	2430	4060	3780	4180	5490	5160	5650	5510	4270	2270	17540
DISTRICT TOTALS 3/ (37 Streams)		2910	7430	10740	11830	14570	24540	24690	25150	32990	26420	18040	79730 4/

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 32b. Northern - Unakwik District, Prince William Sound, chum salmon spawning escapements, (live counts in Streams), 1971 1/.

Stream No. 5/	Stream or Bay	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
221	Eikelberg Creek		0					1200					2160
227	Granite Creek			0	0	0		2150			0		2060
234	Wells River	0	1500	4000	3000	2300		620			0		5370
Other Streams 2/		0	0	590	1560	3680	6100	8420	6340	3060	1080	400	6600
DISTRICT TOTALS 3/ (21 streams)		0	1500	4470	4130	5280	6700	8180	6100	2840	970	350	16190

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 32c. Coghill District, Prince William Sound, chum salmon spawning escapements, (live counts in streams), 1971 1/.

Stream No. 5/	Stream or Bay	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
322	Coghill River	0	0	1000	2500						2000		10200
Other Streams 2/			0	0	0	20							80
DISTRICT TOTALS 3/ (4 Streams)		0	0	1000	2500	3020	3040	5080	5040	3020	2010	1000	10280

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 32d. Northwestern District, Prince William Sound, chum salmon spawning escapements, (live counts in streams), 1971 1/.

Stream No. 5/	Stream or Bay	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
450	Tobenkoff Creek		0	0	600	1530			930				3200
458	Parks Creek		0	0	700	2150						0	7540
476	Shrode Creek		0	0	0	0						600	2840
479	Culross Creek		0	0		700			800				2160
Other Streams 2/		0	0	0	550	2150	4610	6650	4860	2310	240	10	8550
DISTRICT TOTALS 3/ (28 Streams)		0	0	0	2050	6530	13510	16250	11590	7210	2740	860	24290

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 32e, Southwestern-Eshamy District, Prince William Sound, chum salmon spawning escapements, (live counts in streams) 1971

Stream No. 5/	Stream or Bay	WEEK ENDING 7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
	Other Streams 2/	0	50	590	820	680	390	240	160	100	1210
	DISTRICT TOTAL 3/ (11 Streams)	0	50	590	820	680	390	240	160	100	1210

1/ Ground Counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 32f. Montague District, Prince William Sound, chum salmon spawning escapements, (live counts in streams), 1971. 1/

Stream No. 5/	Stream or Bay	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
741	Chalmers River			0	0		3150		24200	9000	2450		24600
Other Streams 2/				0	0	40	90	400	610	700	480	250	1020
DISTRICT TOTALS 3/ (10 Streams)				0	0	1540	3240	20400	24810	9700	2930	1450	25620

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 32g. Southeastern District, Prince William Sound chum salmon spawning escapements, (live counts in streams), 1971. 1/ 4

Stream No. 5/	Stream or Bay	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
815	Constantine Creek	50			500	300	1760			2000	1030		5020
Other Streams 2/		0	0	150	360	1220	2030	1870	2040	1470	930	530	4240
DISTRICT TOTALS 3/ (17 Streams)		50	100	350	860	1520	3790	3870	6040	3470	1960	1130	9260

1/ Ground counts underlined.
2/ From records maintained on small streams which had a total of less than 2,000.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 33. Recapitulation of weekly chum salmon counts by districts, (live counts in streams), 1971 1/.

No. of Streams	District	WEEK ENDING 7/17	7/24	7/31	8/7	8/14	8/21	8/28	9/4	9/11	9/18	9/25	Calculated Season Total
37	EASTERN	2910	7430	10740	11830	14570	24540	24690	25150	32990	26420	18040	79730
21	NORTHERN	0	1500	4470	4130	5280	6700	8180	6100	2840	970	350	16190
4	COGHILL	0	0	1000	2500	3020	3040	5080	5040	3020	2010	1000	10280
28	NORTHWESTERN	0	0	0	2050	6530	13510	16250	11590	7210	2740	860	24290
11	SOUTHWESTERN - ESHAMY			0	50	590	820	680	390	240	160	100	1210
10	MONTAGUE			0	0	1540	3240	20400	24810	9700	2930	1450	25620
17	SOUTHEASTERN	50	100	350	860	1520	3790	3870	6040	3470	1960	1130	9260
128	PRINCE WILLIAM SOUND	2960	9030	16560	21420	33050	55640	79150	79120	59470	37190	22930	166580

1/ Totals rounded to nearest 10 salmon.

TABLE 34. Prince William Sound pink, chum and red salmon total estimated spawning escapement by district, 1971. 1/

District	Number of Streams Surveyed	Pinks	Chums	Reds
Eastern	51	523,750	79,730	4,500
Northern-Unakwik	14	161,540	16,190	0
Northwestern - Coghill	31	614,530	34,570	15,300
Southwestern - Eshamy	26	104,080	1,210	15,700
Montague	57	337,540	25,620	0
Southeastern	30	374,000	9,260	0
TOTAL	209	2,115,440	166,580	35,500

1/ Number of salmon rounded to nearest 10.

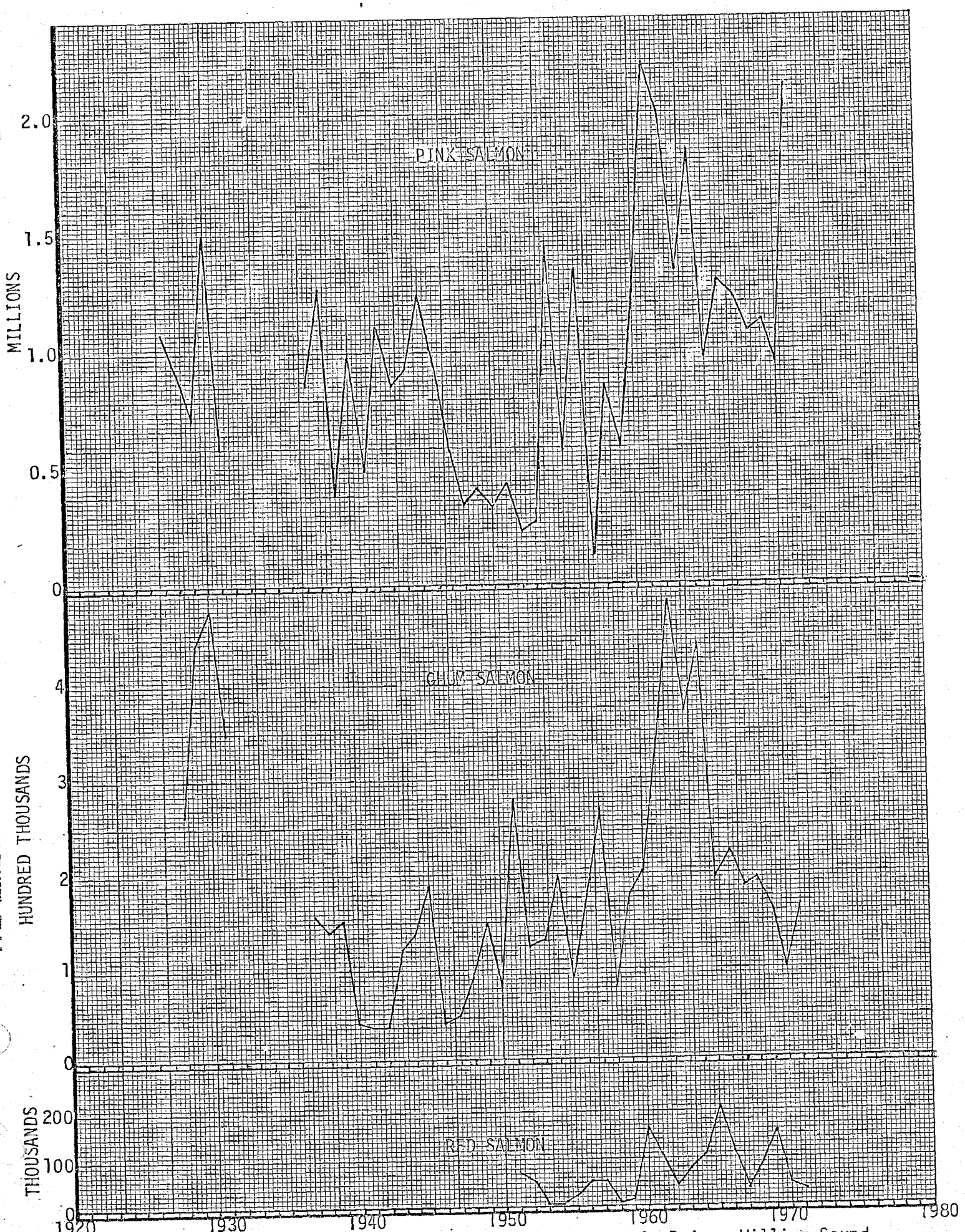

FIGURE 11. Annual estimated salmon spawning escapement in Prince William Sound, 1927 - 1971.

TABLE 35. Age analysis chum salmon commercial catch, Prince William Sound, 1971.

Week	AGE CLASS 3 Number	3 Percent	4 Number	4 Percent	5 Number	5 Percent	Percent Female	Percent Male
26	1	5	17	89	1	5	15	85
27			24	92	2	8	90	10
29	23	5	495	92	21	3	35	65
30	21	6	353	93	5	1	53	47
31	18	5	330	93	5	2	48	52
32	11	3	300	92	16	5	45	55
33	7	4	168	90	12	6	48	52
34	1	3	35	97			43	57
TOTAL	82	4.40	1,722	92.28	62	3.32	48	52

N = 1,866

TABLE 36. Age analysis, chum salmon escapement, by stream, Prince William Sound, 1971.

Stream Number	AGE CLASS 3 Number	3 Percent	4 Number	4 Percent	5 Number	5 Percent
35	7	5	121	85	14	10
48	2	2	111	97	1	1
51	9	4	203	93	7	3
83	1	1	73	99		
87	3	4	62	93	2	3
116	2	3	72	97		
117	2	3	71	94	2	3
153	9	8	99	87	6	5
165	3	15	17	85		
216 & 221			28	100		
229	1	3	36	97		
234	5	4	106	94	2	2
276			35	97	1	3
421			35	90	4	10
450			38	100		
479	1	3	31	91	2	6
741			112	100		
746			36	100		
806			38	100		
812			4	67	2	33
815	1	1	102	92	8	7
TOTAL	46	3.01	1,430	93.65	51	3.34

TABLE 37. Shrode Creek daily weir count, 1971.

Date	Salmon Count				Dolly Varden	Cutthroat Trout
	Pinks	Reds	Coho	Chum		
8/31*	12	53			1	
9/1	425	55			4	2
9/2	36	1			1	
9/3	230	10			3	
9/4	790	27			2	3
9/5	1,265	17			10	5
9/6	2,311	21		1	7	5
9/7	2,825	19	1	4	6	3
9/8**	1,751	36	9	1	4	3
9/9	1,851	18	9	1	3	2
9/10	864	33	11		4	1
9/11	125	6	3		2	1
9/12	86					1
9/13	15	1	1			
9/14	12	1				
9/15	0	0				
9/16	18	2				
TOTAL	12,616	300	34	7	47	26

* Weir count began August 3rd and August 31 was the first day that fish were observed over the weir.

** Two king salmon counted.

TABLE 38. Shrode Creek weir station weather data, 1971.

Date	Water Temperature	Air Temperature	General Weather
8/5	36° F.	41° F.	Rain
8/6	36° F.	44° F.	Rain
8/7	36° F.	44° F.	Rain
8/8	36° F.	43° F.	Rain
8/9	36° F.	41° F.	Rain
8/10	36° F.	45° F.	Cloudy
8/11	36° F.	50° F.	Fair
8/12	36° F.	46° F.	Cloudy
8/13	36° F.		Rain
8/14	36° F.		Rain
8/15	36° F.		Rain
8/16	36° F.		Rain
8/17	37° F.		
8/18	37° F.		
8/19	38° F.		
8/20	38° F.		
8/21	38° F.		
8/22	39° F.		Clear
8/23	39° F.		Rain
8/24	39° F.		Rain
8/25	39° F.	51° F.	Cloudy
8/26	39° F.	49° F.	Rain
8/27	39° F.	50° F.	Rain
8/28	39° F.	45° F.	Rain
8/29	39° F.	45° F.	Rain
8/30			Rain
8/31			Rain
9/1			Rain
9/2			Rain
9/3			Rain
9/4			Rain
9/5			Rain
9/6			Rain
9/7			Rain
9/8			Fair
9/9			Rain
9/10			Fair
9/11			Fair
9/12			Fair
9/13			Rain
9/14			Rain
9/15			Rain
9/16			Rain
9/17			Rain
9/18			Fair
9/19			Rain
9/20			Rain
9/21			Rain
9/22			Fair

1/ Temperatures in degrees fahrenheit.

ESHAMY DISTRICT

Commercial Fishery

The Eshamy district was closed to commercial salmon fishing in 1971.

Escapement

The 1971 spawning escapement is shown by the daily weir count in TABLE 39. Cumulative weir counts from 1960 are shown in TABLE 40. Counting at Eshamy River weir began on July 7 and terminated on September 15. Similar to other streams in Prince William Sound the cold water temperatures delayed upstream migration about one month. Weir counts are given in TABLE 39 but the validity of the counts are questionable as it is known that the weir was not always fish-tight. The counts do, however, reflect the general timing of the spawning runs.

General weather data collected at the station is given in TABLE 41. TABLE 42 shows the Eshamy district salmon catch, 1950 - 1971.

TABLE 39. Eshamy River daily weir count, 1971.

Date	Red Salmon Count: Daily Count by Sex: Male	Female	Jack	Daily Total	Weekly Total	Cumulative Total	Count of Other Species: Coho	Pink
7/21[1/]	32	23		55		55		
22	3	1		4		59		
23						59		
24					59	59		
25	53	40	1	94		153		
26	80	107		187		340		1
27	119	111		230		570		10
28	6	9		15		585		
29						585		
30	70	52		122		707		
31					648	707		
8/1						707		
2	15	9		24		731		
3						731		
4						731		
5	5	2	1	8		739		
6	8	7		15		754		
7	2			2	49	756		3
8	6	2		8		764		
9						764		
10	32			32		796		10
11	3			3		799		
12						799		
13	3			3		802		2
14	1			1	47	803		
15	2	1		3		806		
16	1	1		2		808		20
17						808		50
18	1	2		3		811		5
19	2			2		813		42
20	3	4		7		820	2	191
21	9	8		17	34	837	1	153
22						837	7	101
23	25	22	1	48		885	16	21
24	7	5		12		897	13	7
25	17	20		37		934	28	123
26	4	1		5		939	2	28
27	2			2		941	4	
28					104	941	2	1
29						941		39
30						941		792
31						941	7	16

TABLE 39, cont. Eshamy River daily weir count, 1971.

Date	Red Salmon Count: Daily Count of Sex Male	Female	Jack	Daily Total	Weekly Total	Cumulative Total	Count of Other Species: Coho	Pink
9/1	2	1		3		944		1,400
2						944	1	20
3						944		27
4					3	944	2	10
5	1			1		945	2	32
6						945	2	15
7	1	2		3		948	1	11
8	1	1		2		950	1	37
9	1			1		951	1	5
10		2		2		953	1	
11					9	953		2
12						953		
13						953	4	5
14	1			1		954		
15 2/					1	954		
TOTAL	518	433	3	954	954	954	97	3,179

1/ Weir installed and in operation on July 7.

2/ Weir removed and counting terminated September 15.

TABLE 40. Eshamy River red salmon weekly cumulative weir counts, 1960 - 1971.

Date Ending	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
6/30	52	2,183	1,096	0	8	0	16	26	363	47	64	0	
7/7	1,308	3,421	1,441	116	28	0	49	846	639	347	172	0	
7/14	3,220	4,317	1,768	168	1,948	885	784	858	1,362	1,151	240	0	
7/21	4,633	5,381	1,877	195	3,379	1,553	1,181	875	1,948	1,220	341	55	
7/28	6,214	6,209	2,024	211	5,336	5,110	2,795	896	2,012	1,224	932	585	
8/4	7,316	7,438	2,132	222	6,706	8,271	5,281	1,195	6,503	2,712	1,632	731	
8/11	8,252	21,412	3,704	546	8,657	11,252	10,670	3,208	10,925	4,755	2,046	799	
8/18	10,509	31,580	5,538	716	17,604	28,568	13,912	3,871	23,806	5,599	7,204	811	
8/25	12,209	38,474	7,450	2,063	45,994	41,965	25,471	9,031	66,113	7,059	9,675	934	
9/2	13,217	45,072	8,720	2,588	65,672	51,150	26,375	10,746	67,766	10,935	11,065	944	
9/9		46,400	9,297	3,064	67,730	53,053	26,572	10,821	68,048	24,722	11,431	951	
9/16		47,275	9,390	3,092		90,438	26,593			61,185	11,460	954	
9/23						108,934				61,196			
TOTAL	13,217	47,275	9,390	3,092	67,730	108,963	26,593	10,821	68,048	61,196	11,460	954 *	

* Probably inaccurate because of holes in weir. Actual escapement is estimated to be at least 3,000.

TABLE 41. Eshamy River weir station weather data, 1971.

Date	Air Temperature 1/ Min.	Max.	Water Temp. 1/	Water Level 2/	General Weather 3/
6/20	40°F.	51°F.	34	1.00	Cloudy
21	39	55	35	1.00	Clear
22	41	56	35	1.00	Cloudy
23	42	60	36	1.00	Clear
24	40	58	36	0.90	Cloudy
25	39	60	36	0.90	Fair
26	36	54	36	1.00	Fair
27	38	53	38	1.00	Cloudy
28	37	49	38	1.00	Cloudy
29	36	50	38	0.97	Rain
30	37	47	38	1.00	Rain
7/1	34	44	37	1.10	Rain
2	36	46	38	1.00	Rain
3	38	54	39	1.00	Fair
4	38	60	39	1.00	Fair
5	36	64	39	1.00	Fair
6	38	67	40	0.98	Fair
7	37	70	41	0.98	Fair
8	38	72	41	0.99	Fair
9	38	74	41	1.00	Fair
10	37	76	42	1.00	Fair
11	38	64	42	1.00	Fair
12	38	66	42	1.01	Fair
13	37	72	41	1.00	Fair
14	36	54	39	1.00	Rain
15	36	53	39	1.01	Rain
16	34	54	41	1.01	Rain
17	35	56	40	1.00	Rain
18	36	57	40	1.00	Rain
19	42	50		1.20	Rain
20	42	52	40	1.40	Cloudy
21	46	52	41	1.20	Cloudy
22	48	52	40	0.90	Cloudy
23	44	53	40	1.30	Rain
24	40	50	42	2.30	Rain
25	48	50	41	2.20	Rain
26	46	51	40	1.90	Cloudy
27	47	54	43	1.70	Cloudy
28	46	50	42	1.40	Rain
29	48	51	43	1.40	Rain
30	48	52	44	1.30	Rain
31	47	52	44	1.30	Rain

TABLE 41, cont. Eshamy River weir station weather data, 1971

Date	Air Temperature 1/ Min.	Max.	Water Temp. 1/	Water Level 2/	General Weather 3/
8/1	48	54	43	1.20	Rain
2	47	58	44	1.20	Fair
3	48	64	45	1.10	Fair
4	48	60	45	1.10	Cloudy
5	47	58	45	1.10	Rain
6	47	57	44	1.10	Rain
7	42	60	45	1.10	Rain
8	45	58	45	1.00	Rain
9	42	58	44	1.00	Cloudy
10	43	57	46	1.00	Cloudy
11	48	59	48	0.90	Clear
12	42	58	50	0.80	Cloudy
13	44	59	51	0.80	Cloudy
14	47	60	52	0.75	Fair
15	42	57	52	0.75	Cloudy
16	46	57	52	0.80	Rain
17	52	52	54	0.90	Rain
18	51	56	54	0.80	Rain
19	50	54	53	0.85	Rain
20	48	56	54	0.90	Cloudy
21	47	60	53	0.90	Clear
22	48	54	52	0.85	Rain
23	49	57	52	0.75	Rain
24	50	58	53	0.80	Rain
25	48	55	52	0.75	Cloudy
26	50	54	52	0.70	Rain
27	50	56	53	0.75	Rain
28	47	58	52	0.65	Cloudy
29	48	53	52	0.65	Rain
30	48	52	53	0.60	Rain
31	49	56	54	0.65	Rain
9/1	50	58	54	0.75	Cloudy
2	49	52	50	0.80	Rain
3	47	50	49	0.80	Rain
4	46	48	47	0.80	Rain
5	46	51	47	0.90	Rain
6	45	54	46	0.85	Rain
7	48	53	46	0.80	Cloudy

TABLE 41, cont. Eshamy River weir station weather data, 1971.

Date	Air Temperature 1/ Min.	Max.	Water Temp. 1/	Water Level 2/	General Weather 3/
9/8	49	55	45	0.85	Rain
9	47	57	45	0.80	Clear
10	50	60	45	0.78	Clear
11	45	52	45	0.70	Cloudy
12	48	54	45	0.75	Clear
13	47	55	46	0.70	Clear
14	43	52	47	0.65	Cloudy
15	44	53	46	0.35*	Cloudy

1/ Temperatures in degrees Fahrenheit.

2/ Water level measured in tenths of feet.

3/ Ice out of Eshamy Lake on July 31.

* Water level dropped when weir removed.

TABLE 42. Eshamy district salmon catch, 1950 - 1971.

Year	Reds	Pinks	Chums	Cohos	Total
1950	23,294	14,710	4,217	564	42,785
1951	72,483 *	49,335 *	10,865	1,106 *	133,789
1952	32,998	7,714	2,757	471	43,940
1953	11,740	41,497 *	10,410 *	749 *	64,396
1954	6,185	12,365	6,133	441	25,124
1955	12,919	26,857	4,806	595	45,177
1956	75,355	32,101	14,439	788	122,683
1957	33,665	22,672	12,183	738	69,258
1958		S E A S O N C L O S E D			
1959		S E A S O N C L O S E D			
1960		S E A S O N C L O S E D			
1961	55,133	113,326	22,918	1,324	192,701
1962	23,857	76,345	39,909	3,895	144,006
1963		S E A S O N C L O S E D			
1964		S E A S O N C L O S E D			
1965	15,456	550	649	71	16,726
1966	20,826	36,584	7,896	745	66,051
1967		S E A S O N C L O S E D			
1968		S E A S O N C L O S E D			
1969	61,728	25,273	8,021	46	95,068 2/
1970	17,292	44,381	5,632	579	67,886 3/
1971		S E A S O N C L O S E D			
TOTAL	462,931	503,710	150,835	12,112	1,129,590
AVERAGE 1/	33,067	35,979	10,774	865	80,675

* Estimated from case pack.
1/ Average of years fished.
2/ In addition, 16 kings were caught.
3/ In addition, 2 kings were caught.

COGHILL AND UNAKWIK DISTRICT

Commercial Fishery

The Coghill - Unakwik season opened as scheduled on June 21 and was closed by emergency order to drift gill nets on July 17. Purse seine fishing was continued until the end of the general purse season which closed August 16.

The 1971 catch statistics are summarized in TABLE 43 for both purse seines and drift gill nets. Comparative catch and catch per unit of effort by drift gill nets is shown in TABLE 44 for the years 1961 to 1971. In 1971 both types of gear caught 373 kings, 41,010 reds, 178 coho, 18,608 pinks and 30,540 chums during the early Coghill - Unakwik season, TABLE 43.

Escapement

The weir - tower count was discontinued in 1971 because of inclement weather conditions, and snow and ice which did not melt until late in the season. In addition, heavy winter snows had collapsed the cabin which is used as quarters for the field crew.

Comparative spawning escapement estimates from aerial counts are summarized in TABLE 45 for the years 1960 to 1971.

TABLE 43. Coghill and Unakwik district purse seine and drift gill net weekly catch, 1971. 1/

Week	Kings	Reds	Cohos	Pinks	Chums	Units of Gear
Purse Seine 2/						
26	12	343		84	647	23
27	59	1,661	16	1,488	3,908	52
28	229	7,674	108	12,919	14,620	102
29	48	5,768	209	45,679	20,861	52
30	20	6,198	194	65,877	18,963	44
31	6	1,598	968	180,320	37,088	67
32		61	388	66,317	6,668	24
33		1	81	49,390	1,476	13
Sub-Total	374	23,304	1,964	422,074	104,231	
Drift Gill Net						
26	32	4,244		9	3,693	225
27	23	7,368	19	245	3,885	188
28	10	10,484	22	526	2,543	104
29 *	8	9,236	13	3,337	1,244	26
Sub-Total	73	31,332	54	4,117	11,365	
Total	447	54,636	2,018	426,191	115,596	

1/ Data from early Coghill - Unakwik season, June 21 to July 16.
2/ Purse seine catch data also appears in the Prince William Sound catch, TABLES 25, 26, 27 and 28.
* General purse seine season also open this week.

TABLE 44. Coghill and Unakwik District gill net comparative effort and catch, 1961 - 1971.

Year	Reds	Pinks	Chums	Cohos	Average Units of Gear	Red Catch/ Unit of Gear
1961 1/	12,961	10,019	2,412	13	25	518
1962 2/	13,846	2,241	4,817	15	41	338
1963 3/	16,965	2,689	5,265	20	19	893
1964 3/	28,864	5,790	4,494	2	44	656
1965 *	22,855	1,905	4,363	18	19	1,203
1966 *	30,924	995	1,684	6	24	1,289
1967 *	24,565	37,854	18,607	45	73	337
1968 *	47,323	19,326	16,870	114	91	520
1969 *	79,442	1,142	8,153	9	55	1,444
1970 *	27,916	8,503	5,765	62	82	340
1971 *	31,332	4,117	11,365	54	176	178
TOTAL	336,993	93,581	83,795	358		
AVERAGE	30,635	8,507	7,617	32		

1/ The first season for drift gill net fishing in the Coghill District.
2/ The first season for drift gill net fishing in the Unakwik District.
3/ No drift gill net catches were reported from the Unakwik District.
* Purse seines also fished these years.

TABLE 45. Comparative Coghill River spawning escapement estimates, 1960 - 1971.

Year	WEIR - TOWER ESTIMATES 1/ Reds	Chums	Pinks	Coho	AERIAL - GROUND SURVEY ESTIMATES 2/ Reds	Chums	Pinks	Coho
1960					129,000	24,012	2,840	
1961	54,792	1,160	183,661		40,000	49,324	195,600	
1962	26,866		114		12,000	27,000	3,520	
1963	63,984				75,000	63,400	57,930	280
1964					22,200	37,640	9,720	
1965	40,000				85,000	13,200	62,000	
1966	80,000				85,000	10,360	6,260	
1967	11,800 *	7,960	187,224		33,000	6,600	139,300 3/	
1968 4/					11,800	12,640	2,650	
1969 5/	10,142 *				81,000	34,600	72,000	
1970 5/	9,658 *				35,200	3,080	18,580	
1971	no weir count				15,000	10,200	500,000	

1/ Above weir.
2/ Entire system.
3/ Estimated from stream counts. Aerial estimates of schooled pink salmon in Coghill Lake indicated an escapement in excess of 500,000.
4/ Aerial estimate of red salmon escapement only as red migration preceeded weir installation.
5/ The weir was removed prior to the upstream migration of pinks and chums.
* Unexpanded counts.

CRAB FISHERY

Dungeness Crab

The Dungeness crab catch continued to decline in 1971 due to several factors including an apparent reduced population of legal-size male crab, decreased fishing pressure in the Gulf of Alaska and a soft-shell condition in Orca Bay and Orca Inlet during the fall fishery. It is suspected that the soft-shell condition was aggrevated by the prevailing cold water temperatures which extended the normal hardening period. Most of the catch of 509,899 pounds shown in TABLE 46 was taken from Orca Bay and Orca Inlet. The 1971 catch is about one-fourth of the average for the period, 1951 - 1971.

Historical catches from the inception of the fishery is shown in APPENDIX TABLE 13.

FIGURE 12 presents in graph form the commercial catch of Dungeness crab landed in Cordova from the inception of the fishery.

King Crab

The 1971 king crab catch by week and stat area is given in TABLE 47.

Historical king crab catches are shown in APPENDIX TABLE 14.

Tanner Crab

Tanner crab fishing is a new industry in the Cordova area and had its beginning in 1968 when 298,427 pounds, live weight, were harvested. The harvest about tripled in 1969 and showed a large increase again in 1970. The 1971 catch shows a large decrease from the previous two years due to almost no fishing during the 1970 - 1971 winter period, and a decrease in fishing pressure in the fall of 1971.

The 1971 catch by week by stat area is shown in TABLE 48.

APPENDIX TABLE 15 gives the catch in pounds, live weight, from the inception of the fishery.

TABLE 46. Dungeness crab catch in pounds by statistical area, by week, from the Prince William Sound Area, 1971.

	STAT AREA								
Week	20-100	20-108	20-117	203-15	203-72	203-90	203-94	203-99	TOTAL
29			8166						8166
30			12305						12305
31			8270						8270
32			15830						15830
33			8805						8805
34			6975						6975
35	167		14565						14732
36	50488	2785						23575	76848
37	55362	14605		692		2395		3590	76644
38	53182	9671						760	63613
39	44510	6250						7475	58235
40	50422							6850	57272
41	24348	1405						5155	30908
42	22590	940						3190	26720
43	19915							1090	21005
44	13215								13215
45	3956								3956
46	5315								5315
47					780		65		845
48	240								240
	343710	35656	74916	692	780	2395	65	51685	509899

TABLE 47. King crab catch in pounds, live weight, by stat area and week, 1971.

Week	Stat Area													Total
	201-00	203-03	203-06	203-09	203-15	203-30	203-76	203-87	203-89	203-90	203-94	203-95	203-96	
2					656	6,666								7,322
5					2,618									2,618
35									2,761					2,761
36									1,005					1,005
37					827				1,115					1,942
38									2,250					2,250
39					456									456
40									2,500					2,500
41		315		320						1,275				1,910
42										1,040			75	1,115
43										2,540			185	2,725
44													137	137
45			4,585					1,765		380			25	6,755
46			12,895		438			4,348						17,681
47			5,070								44	2,685		7,799
48			20,100					3,267						23,367
49			8,097		470			20,400					261	29,228
50	115							7,400				26	126	7,667
51			4,290					995			150		52	5,487
52			19,185				330							19,515
Total	115	315	74,222	320	5,465	6,666	330	38,175	9,631	5,235	194	2,711	861	144,240

TABLE 48. Tanner crab catch in pounds, live weight, by stat area and week, 1971.

Week	Stat Area									Total
	201-00	203-30	203-87	203-90	203-94	203-95	203-96	203-97	203-99	
2		348								348
42				625			4,810		1,085	6,520
43				6,770			23,851		2,540	33,161
44	160			2,330			17,115		4,935	24,540
45	1,181				19,125	4,270	10,665		185	35,426
46	495				34,890	17,665	27,330		365	80,745
47					14,950	11,900	26,530			53,380
48			7,715		20,410	9,495	21,985	15,895		75,500
49	2,145		10,005		7,990	32,045	27,740	15,860		95,785
50			10,760			45,205	31,735	27,465		115,165
51	26,970		9,410		15,590	38,125	24,500	7,175		121,770
Total	30,951	348	37,890	9,725	112,955	158,705	216,261	66,395	9,110	642,340

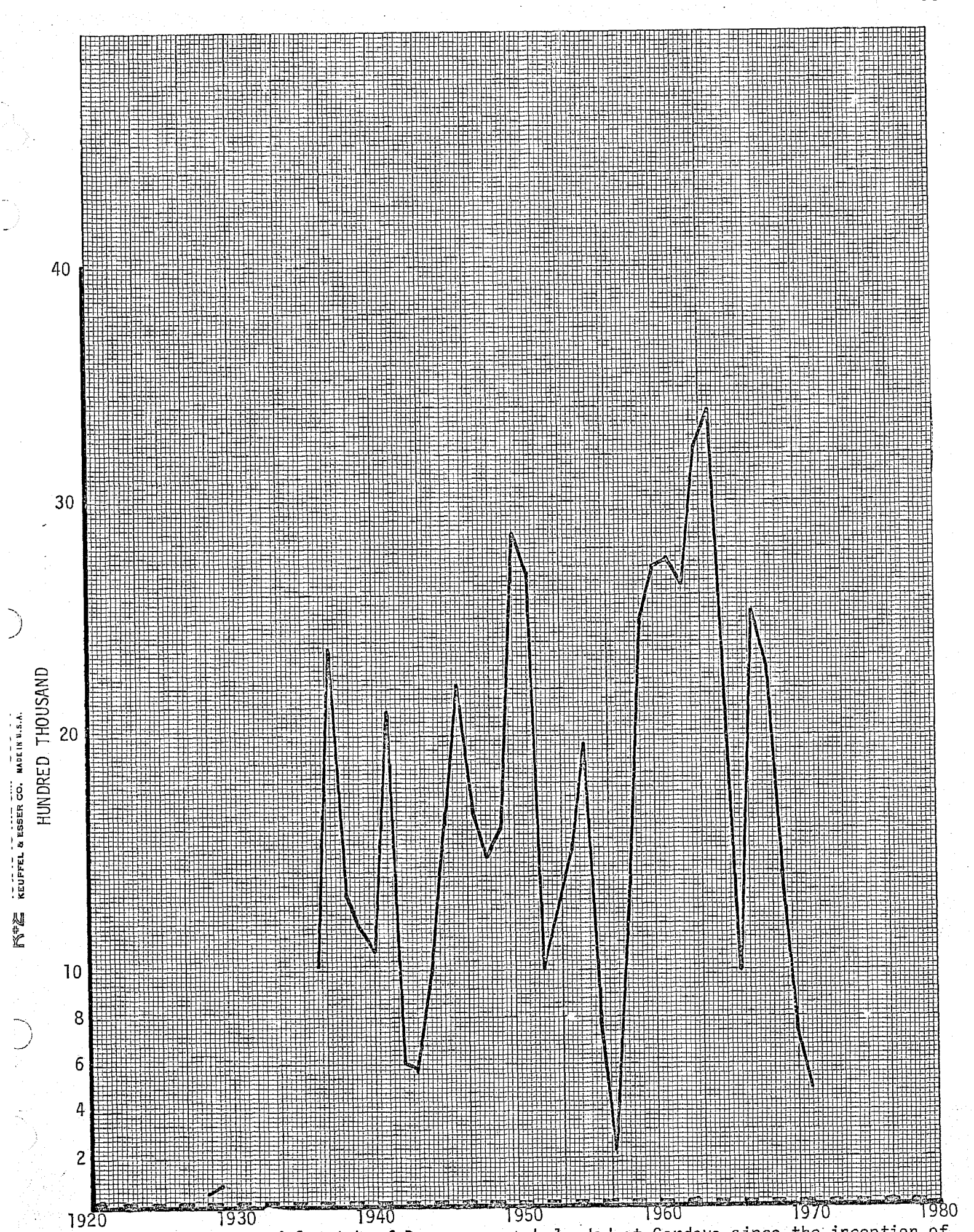

FIGURE 12. Commercial catch of Dungeness crab landed at Cordova since the inception of the fishery.

MISCELLANEOUS FISH AND SHELLFISH

Several operations harvested herring, herring spawn on kelp, razor clams, shrimp, halibut and troll salmon.

Herring were harvested for bait and sac roe and herring spawn on kelp was harvested in 1971. TABLE 49 shows a harvest of 1,878,523 pounds of herring which was taken for extraction of roe. A total of 487 pickers harvested 768,823 pounds of herring spawn on kelp from the Port Fidalgo - Valdez Arm area of Prince William Sound. APPENDIX TABLE 15 shows the herring fishery production from the inception of the fishery.

TABLES 50, 51 and 52 give analytical data on herring samples collected from Prince William Sound, April 18 - 24, 1971 while FIGURES 13 and 14 show by graph size frequency and age composition of herring by percent from the 1971 Prince William Sound commercial catch.

TABLE 53 shows the razor clam dig by week by stat area for 1971. Total production was 37,972 pounds which is above the dig of the past two years but is below the average since canning was discontinued in 1963. The majority of the dig was used as bait. APPENDIX TABLE 17 shows the historical razor clam case pack and dig.

Each year some halibut are taken by local fishermen and sold to fresh markets or commercial freezer plants. The total catch recorded from fish tickets was 61,267 pounds in 1971.

Other bottom fish harvested in 1971 totaled 7,391 pounds. In addition, 193 pounds of smelt were recorded from fish tickets.

Some salmon are taken by troll gear each year from near Middleton Island and adjacent areas. Local fishermen take a few winter white king salmon from Orca Bay and Orca Inlet and sell to local fresh markets. A total of 30,651 pounds were reported on fish tickets.

A total of 6,537 pounds, heads off, of prawn-size shrimp were sold to local fresh markets and in Anchorage.

TABLE 49. Herring and herring spawn on kelp harvest in pounds, by week, by statistical area, 1971.

	HERRING							HERRING SPAWN ON KELP		
	Stat. Areas							Stat. Areas		
Week	221-10	221-40	221-50	221-60	222-10	222-40	Total	221-40	221-50	Total
16		43,000			10,000		53,100			
17		52,000	752,660		321,500	4,500	1,130,660	95,759	98,416	194,175
18		253,900	137,835				391,735	76,131	333,447	409,578
19		263,075					263,075	140,810	9,741	150,551
20								14,519		14,519
42			3,155				3,155			
43			13,000				13,000			
45				12,610			12,610			
47	6,638						6,638			
48	4,650						4,650			
TOTAL	11,288	611,975	906,650	12,610	331,500	4,500	1,878,523	327,219	441,604	768,823 *

* Final summary by statistical section: Area 221-40 - 384,592 pounds; Area 221-50 - 384,889 pounds. Total - 769,481.

TABLE 50. Age, size and sex composition of 719 herring collected from Prince William Sound, April 18 - 24, 1971.

Age Group	Year Class	Males				Females				Combined Sexes
		Freq.	Percent	Mean Length	Mean Wt.	Freq.	Percent	Mean Length	Mean Wt.	Percent
II	1969	4	1.2	148	39					0.6
III	1968	91	26.5	179	74	104	30.6	182	84	28.6
IV	1967	69	20.1	192	96	71	20.9	193	103	20.5
V	1966	134	39.1	198	106	125	36.8	199	115	37.9
VI	1965	26	7.6	202	113	23	6.8	210	133	7.2
VII	1964	14	4.1	208	124	11	3.2	213	144	3.7
VIII	1963	5	1.5	220	143	5	1.5	212	140	1.5
IX	1962					1	0.3	225	162	0.2
Sub Total		343				340				
Unreadable		16				20				
Total		359				360				

Mean weight 96.5 grams males and 105.6 grams females.
Sex ratio was not determined.

TABLE 51. Length, frequency and age composition of 683 herring (sexes combined) from the commercial fishery in Prince William Sound, April 18 - 24, 1971.

Length	Age Group								Total	Percent
mm	II	III	IV	V	VI	VII	VIII	IX		
140-149	3	1							4	0.6
150-159	1	2							3	0.4
160-169		10	1	2					13	1.9
170-179		65	10	5		1			81	11.9
180-189		82	24	18	3	1	2		130	19.0
190-199		28	73	85	8	1	1		196	28.7
200-209		7	30	118	20	5	2		182	26.7
210-219			2	29	12	9	1		53	7.8
220-229				2	3	6	2	1	14	2.1
230-239					3	2	2		7	1.0
Total	4	195	140	259	49	25	10	1	683	
Percent	0.6	28.6	20.5	37.9	7.2	3.7	1.5	0.2		
Accum. %	0.6	29.2	49.7	87.6	94.8	98.5	100.0	100.2		

TABLE 52. Prince William Sound herring fecundities by age, April 18 - 24, 1971. 1/

Frequency	Age Group	Mean Fecundity 2/
15	III	19,932
13	IV	22,950
31	V	25,653
8	VI	30,574
6	VII	40,145
1	VIII	44,361
2	X	27,406

1/ Three samples were collected. From Tatitlek Narrows, April 20, 29 females; from Chamberlin Bay, April 19, 40 females; and from the Eastern District, April 18 to 24, 360 females. From the 429 females collected, fecundities were calculated for 76 or 17.7%.

2/ The egg skeins were counted separately using the weight of the eggs. From actual counts, 100 eggs averaged 0.1 gram. Some of the fish varied as much as 50% from one skein to the other but, for the most part, numbers between the two skeins showed little variance. Average fecundity was 26,016.

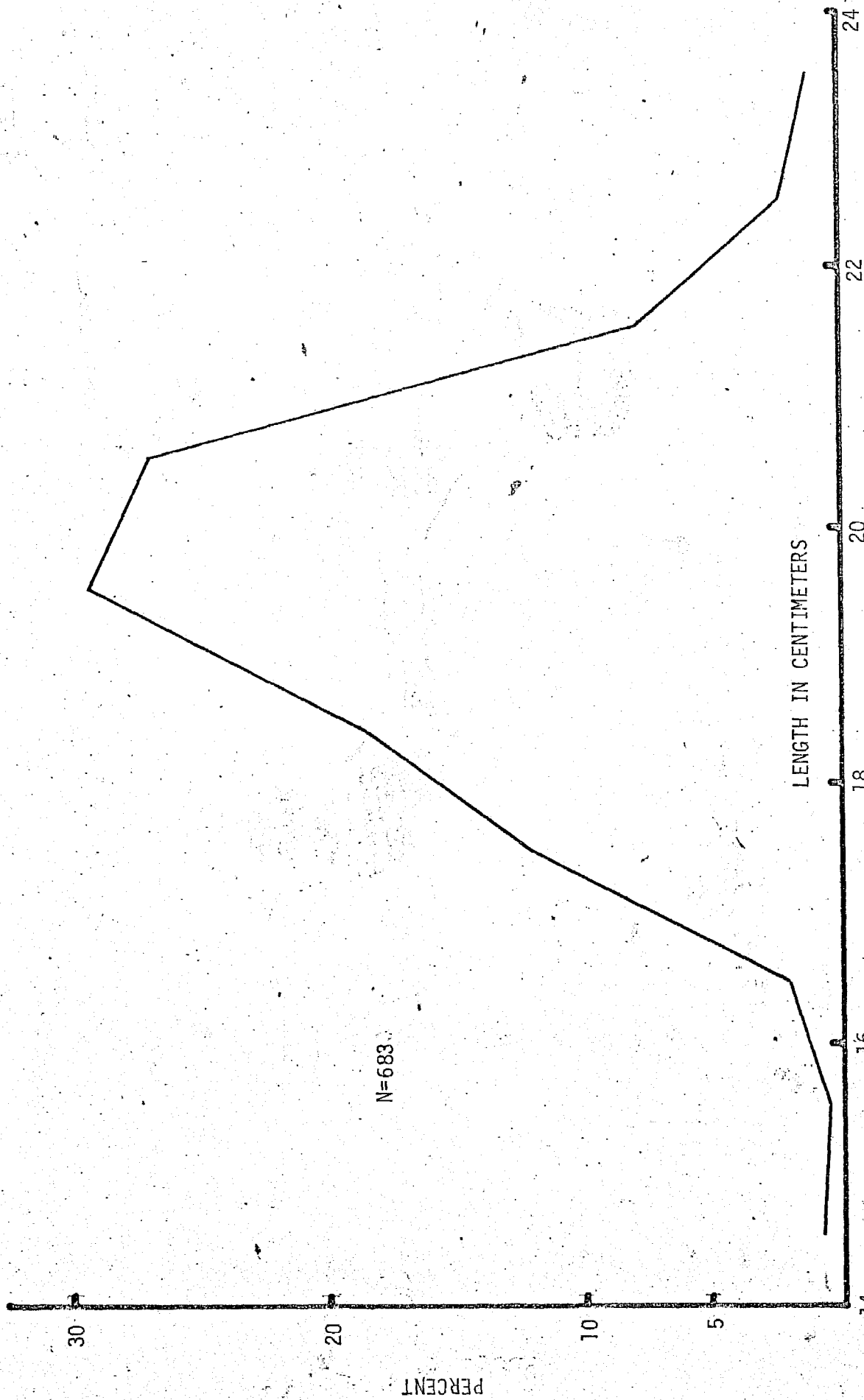

FIGURE 13. Size frequency of herring from Prince William Sound commercial fishery, 1971.

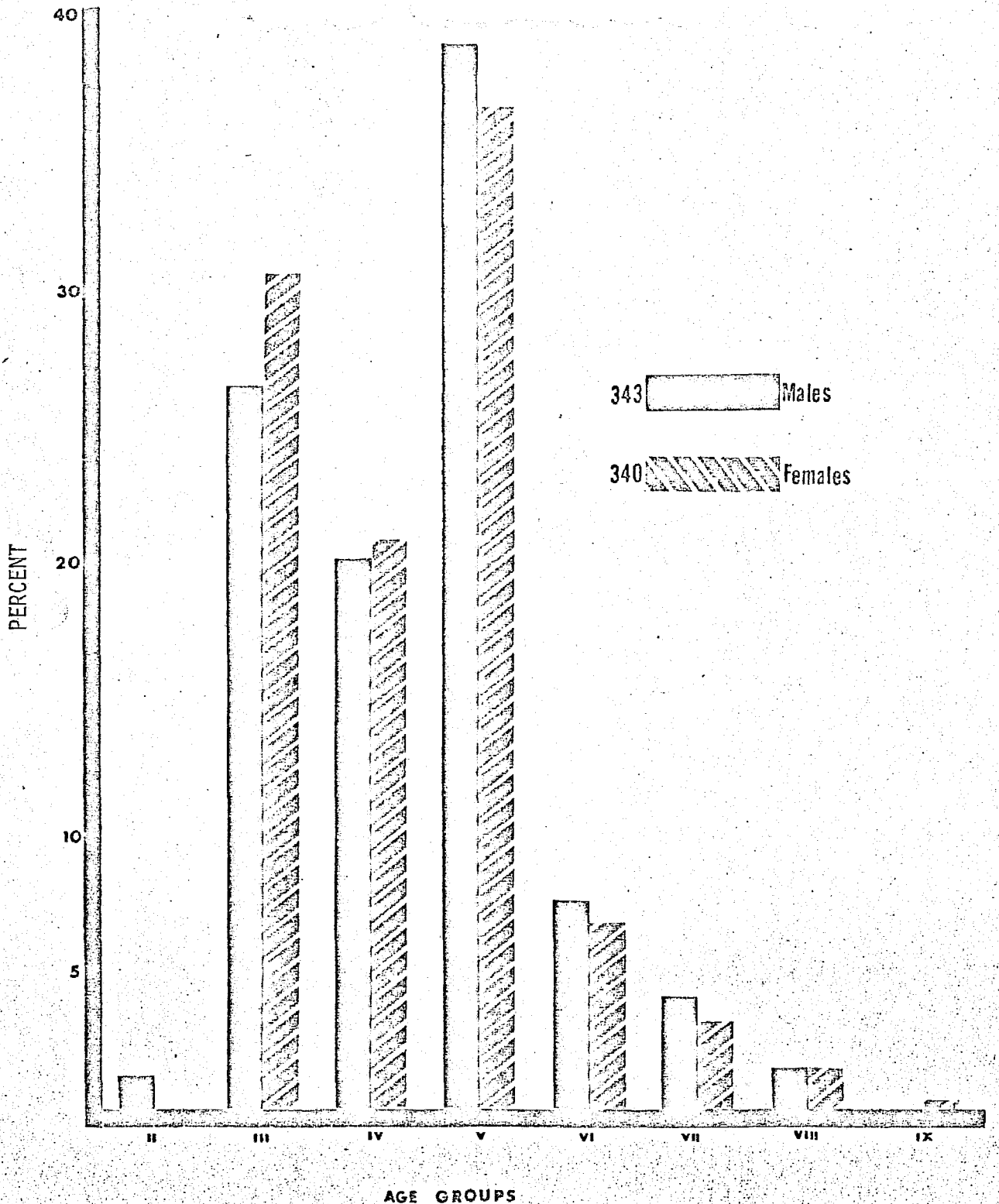

FIGURE 14. Age composition of herring by percent from Prince William Sound commercial fishery, 1971.

TABLE 53. Razor clam dig by statistical area, by week, 1971.

Week	Statistical Areas 20-107	20-108	20-119	203-99	Total Pounds	Landings
6		255			255	1
7		189			189	2
8		121			121	2
9		80			80	1
10		45		48	93	2
11		105			105	1
12		205			205	1
13		394			394	4
14		1,708	456		2,164	17
15		781	154		935	6
17	300	150			450	3
18	650	200	131		981	4
19	250				250	1
20	725	250	244		1,219	7
21	925	2,564	436	230	4,155	19
22	1,122	3,966		2,936	8,024	38
24		1,842	82	145	2,069	10
25		625			625	7
26	193	4,511		701	5,405	30
27		455		384	839	5
28	1,220	2,851		152	4,223	17
29	703	1,090		150	1,943	9
30	308	860		31	1,199	6
32	105	971			1,076	6
33		557			557	2
34	87				87	1
35	122				122	1
37		207			207	2
TOTAL	6,710	24,982	1,503	4,777	37,972	205

COMMERCIAL LICENSE SALES

TABLE 54 presents licenses and receipts for 1971. License sales of $74,505 is an increase of $11,890 over the previous year. An increase is noted for all catagories of licenses except set gill net, shellfish pots and troll gear.

APPENDIX TABLE 18 shows comparative commercial license statistics from 1960 to 1971.

TABLE 54. Summary of commercial fishing licenses and receipts, 1971.

Type of License	No. Licenses Issued Resident	Nonresident	Total Issued	Value Resident	Nonresident	Total Value
Commercial 1/	980	436	1,416	$ 9,800	$13,080	$22,880
Vessel 2/	704	207	911	7,040	6,210	13,250
Drift Gill Net	479	173	652	7,160	7,785	14,945
Purse Seine	212	54	266	10,600	8,100	18,700
Set Gill Net	14		14	100		100
Clam Shovel	110	13	123	550	195	745
Shellfish Pots	70		70	1,260		1,260
Troll	21		21	315		315
Long Line	58		58	1,450		1,450
Scallop Dredge	1		1	50		50
Otter Trawl	1		1	50		50
Beam Trawl	1		1	50		50
Transfer			21			710
TOTAL				$38,425	$35,370	$74,505

1/ Includes captain and crew of tenders.
2/ Includes tenders.

PERSONNEL

The Commercial Fisheries Division employed eight permanent and 19 seasonal employees in the Cordova management area in 1971. Following is a list of personnel, general duty assignments and dates of employment.

Permanent Employees

Ralph B. Pirtle	Area Management Biologist
Peter J. Fridgen	Assistant Area Management Biologist
Richard Nickerson	Research Biologist, Project Leader
Kenneth Roberson	Research Biologist, Project Leader
John D. Solf	Research Biologist, Project Leader
John M. Jackson	Fisheries Technician III
Jeannette Bailey	Clerk - Stenographer
Janice Shaw	Clerk - Typist

Seasonal Employees

Name	Assignment	Dates of Employment
David Baker	Copper River Fishwheel Sampling & Shrode Creek	4/26 - 9/25
Judi Birklid	Issuing Subsistence Fishing Permits - Fairbanks	5/11 - 6/16
Steve Boughton	* Wood Canyon Tagging	6/1 - 9/4
Timothy Brown	Shellfish Research Projects	4/2 - 9/4
Robert Bynam	Shellfish Research Projects	7/29 - 8/24
Tom Crass	* Wood Canyon Tagging	5/27 - 8/20
Allan Curtis	* Wood Canyon Tagging	5/20 - 8/20
John Day	Shellfish Research Projects	4/2 - 7/22
Ellen Dettinger	Fish Ticket Statistics	4/16 - 10/15
Norma Foode	Fish Scale Sampling, Sonar Counter Eyak Lake	5/17 - 8/31
Fraser Goodman	Copper River Fishwheel Sampling	6/28 - 7/30
Steve Hamilton	* Office Assistant - Glennallen	4/22 - 5/21
Lloyd Herring	Prince William Sound Rehabilitation	5/17 - 8/29
Ken Johns	* Wood Canyon Tagging	6/1 - 9/24
Jan Konigsberg	* Klutina Sonar Counter	4/20 - 8/25
Samuel Krogstad	Copper River Fishwheel Sampling	5/3 - 9/16
Michael Malone	* Wood Canyon Tagging	5/10 - 9/4
Roberta McLeod	* Office Clerk - Glennallen	6/1 - 9/3
James Morgan	Eshamy Weir Station	6/1 - 9/15
Sharon Odom	Issuing Subsistence Fishing Permits - Fairbanks	6/16 - 6/30
Gary Parsons	* Wood Canyon Tagging, Miles Lake Fishwheel	4/20 - 8/28
Richard Remme	Copper River Fishwheel Sampling & Shrode Creek	5/3 - 9/25
Larry Scribner	* Checking Subsistence Fishery	5/29 - 8/27
Alvin Smay	Copper River Fishwheel Sampling	4/26 - 6/3
Paul Vick	Eshamy Weir Station	6/8 - 8/31

* Glennallen projects under the supervision of Kenneth Roberson

TABLE 55. Wholesale value of all fishery products from the Cordova area, by species, 1971 1/.

Species	Type of Product	Number of Salmon	Number of Pounds	Cases								Wholesale Value
				48 6 1/2 oz.	48 7 1/2 oz.	48 1/2 lb.	48 4 oz.	48 1 lb.	12 4 lb.	24 6 1/2 oz.	24 19 oz.	
King Salmon	Canned	778	21,762	66	26	292	19					$ 13,618.07
	Frozen	13,953	291,927									209,203.76
Red Salmon	Canned	626,403	4,121,964	118	17058	83731	13935	1930	1495			3,081,440.62
	Frozen	4,258	82,064									51,842.50
Coho Salmon	Canned	272,490	2,357,151		2	9548	397	10037	13274			1,024,292.65
	Frozen	5,436	14,897									9,224.25
Pink Salmon	Canned	4,776,738	16,957,420		1	77630		149879	14805			7,420,180.70
	Frozen	170,406	588,378									115,910.46
Chum Salmon	Canned	471,468	3,404,002		254	2176		32176	6019			1,210,766.67
	Frozen	1,651	11,553									1,848.48
Dungeness Crab	Canned									2847		60,879.54
	Frozen		229,214									119,746.90
King Crab	Frozen		32,655									37,673.09
Tanner Crab	Canned									5276		106,270.93
	Frozen		69,157									35,937.19
Shrimp	Frozen		2,180									2,313.15
Razor Clams	Canned		6,300			31 1/2					144	6,394.00
	Food		3,040									3,950.00
	Bait		13,005									3,251.25
Herring	Sac roe		20,959									39,347.33
	Spawn on kelp		598,461									939,340.03
	Bait		11,288									620.84
Salmon Eggs	Salted, food		869,289									963,329.26
Salmon Heads	Pet food		560,950									22,438.00
Smelt	Frozen		193									173.70
Red Snapper	Fresh		456									228.00
Black Cod	Fresh		109									54.50
Halibut	Fresh		562									224,80
	Frozen		17,437									7,428.16
Total		6,343,581	30,286,373	184	17341	173408.5	14351	194022	35593	8123	144	$15,487,928.83

1/ Data from Annual Reports of Operators.

TABLE 56. Wholesale value of king salmon from the Cordova area by company 1971 1/ 4/.

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48 6 1/2 oz.	Cases 48 7 1/2 oz.	Cases 48 1/2 lb.	Cases 48 4 oz.	Wholesale Value
Blake's Canning	4	Canned, smoked	70	2,055	50				$ 2,500.00
Glacier Packing Company	2	Canned	52	1,535		26			728.00
		Canned, smoked			16				800.00
Morpac, Incorporated 2/	15	Frozen 3/	4,031	83,613*					62,709.75
New England Fish Co. 2/	191	Canned	134	3,680			46		1,104.00
		Frozen	5,234	107,006					71,950.40
Odiak Smokeries	1	Canned, smoked	140	4,056			90		4,500.00
Ocean Harvest Pkg. Co.	2	Canned, smoked	12	309			6		300.00
Pt. Chehalis Packers	85	Canned	363	9,935			121		2,632.60
		Frozen 3/	2,153	50,184*					41,702.90
Polar Pacific Ltd.	20	Frozen	3	54					21.60
St. Elias Ocean Products	75	Canned	7	192			29	19	1,053.47
		Frozen	2,532	51,070					32,819.11
Total			14,731**	313,689	66	26	292	19	$ 222,821.83

1/ Data from Annual Reports of Operators.
2/ New England Fish Company, Alaska Packers Association and Morpac, Inc. production combined.
3/ Heads off, eviscerated. 4/ 1,331 kings were transported to other areas for processing.
* New weight.
** Fish tickets showed a catch of 20,142.

TABLE 57. Wholesale value of red salmon from the Cordova area by company, 1971 1/ 4/.

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48 6 1/2 oz.	48 7 1/2 oz.	48 1/2#	48 1#	12 4#	48 4 oz.	Wholesale Value
Blake's Canning	4	Canned, smoked	318	2213	50						$ 2,500.00
Glacier Packing Company	2	Canned	300	1938		20					560.00
		Canned, smoked			68						1,700.00
Morpac, Incorporated 2/	15	Frozen 3/	3425	77067*							50,093.55
New England Fish Co. 2/	191	Canned	356740	2347352			67302	19			1,918,971.50
Odiak Smokeries	1	Canned	278	1976			20				700.00
Pt. Chehalis Packers	85	Canned	117940	776044		17038		1911			471,282.91
Polar Pacific, Ltd.	20	Frozen 3/	833	4997							1,748.95
St. Elias Ocean Products	75	Canned	150827	992441			16409		1495	13935	685,726.21
Total			630661**	4204028	118	17058	83731	1930	1495	13935	$3,133,283.12

1/ Data from Annual Reports of Operators.
2/ New England Fish Company, Alaska Packers Association and Morpac, Inc. production combined.
3/ Heads off, eviscerated. 4/ 65,855 reds were transported out of the area for processing.
* Net weight.
** Fish tickets showed a catch of 741,945.

TABLE 58. Wholesale value of coho salmon from the Cordova area by company, 1971. 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48 1/2#	48 1#	48 7 1/2 oz.	12 4#	48 4 oz.	$ Wholesale Value
Morpac, Incorporated 2/	15	Frozen 3/	4457	10000*						$ 8,000.00
New England Fish Co. 2/	191	Canned	13541	117137	376	997				38,713.20**
Ocean Harvest Packing Co.	2	Canned, smoked	77	770	7					350.00
Pt. Chehalis Packers	85	Canned	87710	758694		9040	2			320,051.00
Polar Pacific, Ltd.	20	Frozen 3/	979	4897						1,224.25
St. Elias Ocean Products	75	Canned	171162	1480550	9165			13274	397	665,178.45
Total			277926 ***	2372048	9548	10037	2	13274	397	$1,033,516.90

1/ Data from Annual Reports of Operators.
2/ New England Fish Company, Alaska Packers Association and Morpac, Inc. production combined.
3/ Heads off, eviscerated.
4/ 52,948 cohos were transported to other areas for processing.
* Net weight.
** New England Fish Company reported $387,132.00.
*** Fish tickets showed a catch of 327,697.

TABLE 59. Wholesale value of pink salmon from the Cordova area by company, 1971. 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48 1/2#	Cases 48 1#	Cases 48 7 1/2 oz.	Cases 12 4#	Wholesale Value
New England Fish Co. 2/	191	Canned	2858977	10149369	68589	99814			$4,982,231.25
Pt. Chehalis Packers	85	Canned	1211503	4300836		50065	1		1,749,790.40
Polar Pacific, Ltd.	20	Frozen 3/	170406	588378*					115,910.46
St. Elias Ocean Products	75	Canned	706258	2507215	9041			14805	668,159.05
Total			4947144**	17545798	77630	149879	1	14805	$7,536,091.16

1/ Data from Annual Reports of Operators.
2/ New England Fish Company, Alaska Packers Association and Morpac, Inc. production combined.
3/ Heads off, eviscerated.
4/ 786,798 pinks were transported to other areas for processing.
* Net weight.
** Fish tickets showed a catch of 7,312,730.

TABLE 60, Wholesale value of chum salmon from the Cordova area by company, 1971. 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48 1/2#	Cases 48 1#	Cases 48 7 1/2 oz.	Cases 12 4#	Wholesale Value
New England Fish Co. 2/	191	Canned	305561	2206151	2171	25815			$ 848,451.25
Pt. Chehalis Packers	85	Canned	68064	491421		6361	254		188,469.39
Polar Pacific, Ltd.	20	Frozen 3/	1651	11553*					1,848.48
St. Elias Ocean Products	75	Canned	97843	706430	5			6019	173,846.03
Total			473119**	3415555	2176	32176	254	6019	$1,212,615.15

1/ Data from Annual Reports of Operators.
2/ New England Fish Company, Alaska Packers Association and Morpac, Inc. production combined.
3/ Heads off, eviscerated.
4/ 150,087 chums were transported out of the area for processing.
* Net weight.
** Fish tickets showed a catch of 579,552.

TABLE 61. Wholesale value of Dungeness crab from the Cordova area by company, 1971 1/.

Name of Company	Peak Number Employees	Type of Product	Pounds Net Weight Finished Product	Cases 24/6 1/2 oz.	Wholesale Value
Point Chehalis Packers	85	Canned		2,847	$ 60,879.54
		Frozen, sections	120,214		65,636.84
St. Elias Ocean Products	75	Frozen, sections	109,000		54,110.06
TOTAL			229,214	2,847	$180,626.44

1/ Data from Annual Reports of Operators.

TABLE 62. Wholesale value of miscellaneous fish products from the Cordova area by company, 1971 1/.

Name of Company	Peak Number Employees	Type of Product	Pounds Net Weight Finished Product	Cases 48/ 1/2 lb.	Cases 24/ 19 oz.	Cases 24/ 6 1/2 oz.	Wholesale Value
Channel Packing Company	2	Razor clams, canned, whole	3,450 *	11.5			$ 414.00
" " "		" " " , minced		20			680.00
" " "		" " " , whole			79		2,844.00
" " "		" " " , minced			7		252.00
Chatham Fisheries	6	Herring, sac roe	1,920				11,360.00
" "		Herring, spawn on kelp	48,434				136,580.00
Glacier Packing Co.	2	Razor clams, canned	2,850 *		58		2,204.00
Keith Hawley	1	Shrimp, frozen tails	2,180				2,313.15
Tom Lawrence	1	Halibut, fresh	562				224.80
" "		Black Cod, fresh	109				54.50
" "		Red Snapper, fresh	456				228.00
Martin Lubetich	21	Herring, spawn on kelp	89,040				151,368.00
Morpac, Inc.	15	Salmon eggs, food	6,724				6,724.00
Mummy Island Packers	1	Razor clams, fresh frozen	1,000				1,750.00
New England Fish Company	191	Salmon eggs, food	399,463				386,667.60
Carl Olson	2	Razor clams, fresh	2,040 *				2,200.00 **
Point Chehalis Packers	85	Tanner crab, canned	102,882 **			5,276	106,270.93
" " "		Salmon eggs, food	281,998				329,937.66
" " "		Halibut, frozen	17,437				7,428.16
" " "		Herring, bait	11,288				620.84
" " "		King crab, frozen sections	32,655				37,673.09
" " "		Tanner crab, frozen sections	60,690				20,027.70
" " "		Tanner crab, frozen meat	8,467				15,909.49
" " "		Razor clams, frozen bait	13,005				3,251.25
" " "		Smelt, frozen	193				173.70
" " "		Salmon heads, pet food	560,950				22,438.00
Polar Pacific, Ltd.		Herring, spawn on kelp	88,484 *				44,242.00
Seward Fisheries	80	Herring, sac roe	19,039				27,987.33
" "		Herring, spawn on kelp	198,093				284,079.00
Seward Marine Services	3	Herring, spawn on kelp	24,080 *				36,261.03
St. Elias Ocean Products	75	Salmon eggs, food	181,104				240,000.00
Western Alaska Enterprizes	20	Herring, spawn on kelp	88,930				176,290.00
Whitney Fidalgo Seafoods	15	Herring, spawn on kelp	61,400				110,520.00
TOTAL			2,308,923	31.5	144	5,276	$2,168,973.23

1/ Data from Annual Reports of Operators. * Raw weight. ** Estimated.

APPENDIX TABLE 1. Numbers and value to fishermen of salmon landed in the Cordova area, 1951 - 1971. 1/

Year	Item	King	Red	Coho	Pink	Chum	TOTAL
1951	Number	21109	663599	248360	802998	549255	2285321
	Value	$ 84836	$ 729959	$248360	$ 321199	$302090	$1686444
1952	Number	29466	1210640	228512	2167840	550754	4187212
	Value	$122284	$1392236	$239938	$ 899654	$313930	$2968042
1953	Number	12296	621532	66878	1996579	352760	3050045
	Value	$ 51028	$ 776915	$ 70222	$ 828580	$201073	$1927818
1954	Number	15765	1105878	250341	12286	6344	1390614
	Value	$ 65425	$1382348	$225307	$ 5099	$ 3616	$1681795
1955	Number	20563	683750	228904	27072	4676	964965
	Value	$ 85336	$ 854688	$240349	$ 11235	$ 2665	$1194273
1956	Number	12341	738348	197582	4526585	507258	5982114
	Value	$ 51215	$ 996770	$217340	$2036963	$304355	$3606643
1957	Number	9190	637247	107081	650869	706888	2111275
	Value	$ 38139	$ 885773	$117789	$ 292891	$448874	$1783475
1958	Number	19078	345110	125367	6298828	687448	7475831
	Value	$110175	$ 479703	$137904	$2834473	$436529	$3998784
1959	Number	11357	327166	191942	1175	67	531707
	Value	$ 68710	$ 458032	$211136	$ 529	$ 43	$ 738450
1960	Number	10321	430733	236934	1842375	382177	2902540
	Value	$ 64093	$ 633177	$272474	$ 884340	$259880	$2113964
1961	Number	8899	643090	188198	2289435	222058	3351680
	Value	$ 55263	$ 964635	$235248	$1098929	$150999	$2354075
1962	Number	16872	784535	248018	6544961	872373	8466759
	Value	$104775	$1216029	$334824	$3403380	$663003	$5722011
1963	Number	11659	414184	321797	5250116	933327	6931083
	Value	$ 68380	$ 616306	$448907	$2094796	$759495	$3987884
1964	Number	12855	753727	335671	4190053	521773	5814079
	Value	$ 77671	$1168126	$614278	$1715827	$401765	$3977667
1965	Number	16361	939522	137440	2387256	199159	3679738
	Value	$ 97086	$1494122	$193790	$ 775190	$118599	$2678787
1966	Number	11238	1133025	182397	2719902	429767	4476329
	Value	$ 73071	$2000696	$271406	$1058368	$304550	$3708091
1967	Number	10731	549091	213875	2608269	262870	3644836
	Value	$ 67898	$ 993196	$378131	$1728891	$266182	$3434298
1968	Number	12516	727174	314827	2452362	351033	3857912
	Value	$ 80603	$1380467	$626285	$1415072	$371049	$3873476
1969	Number	16514	1021592	89102	4828733	322728	6278669
	Value	$133763	$1930809	$202083	$2610123	$452620	$5329398
1970	Number	19482	1244309	249209	2785014	230366	4528380
	Value	$157804	$2351744	$605578	$1303386	$206800	$4625312
1971 **	Number	17417	742108	323680	7316929	581710	8979714
	Value	$164152	$1562583	$643760	$3124804*	$412855*	$5908154*

1/ From 1951 - 1959 values calculated from "Alaska Commercial Salmon Catch Statistics, Statistical Digest No. 50, U. S. Fish and Wildlife Service, Bureau of Commercial Fisheries, 1960, and from Bureau of Commercial Fisheries Annual Management Reports. Data from 1960 on from Alaska Department of Fish and Game records.

* Does not include the differential to be paid after the case pack is sold.

** Preliminary.

APPENDIX TABLE 2. Prices paid to fishermen for salmon, 1934 - 1971. * 1/

Year	King	Red	Coho	Pink	Chum
1934 2/	$1.00 each	$0.2750 each		$0.05 each	
1935	$1.00 each	$0.30 each		$0.05 each	
1940	$1.50 each	$0.35 each	$0.25 each	$0.06 each	$0.06 each
1942	$1.99 each	$0.535 each	$0.428 each	$0.107 each	$0.1284 each
1943	$1.99 each	$0.535 each	$0.428 each	$0.107 each	$0.1284 each
1944	$1.99 each	$0.535 each	$0.428 each	$0.107 each	$0.1284 each
1945	$1.99 each	$0.535 each	$0.428 each	$0.107 each	$0.1284 each
1946	$2.18 each	$0.5885 each	$0.4708 each	$0.135 each	$0.165 each
1947	$2.35 each	$0.61 each	$0.48 each	$0.15 each	$0.20 each
1948	$2.55 each	$0.75 each	$0.60 each	$0.25 each	$0.30 each
1949	$3.25 each	$0.80 each	$0.75 each	$0.30 each	$0.40 each
1950	$3.00 each	$0.80 each	$0.75 each	$0.30 each	$0.40 each
1951	$4.00 each	$1.10 each	$1.00 each	$0.40 each	$0.55 each
1952	$4.15 each	$1.15 each	$1.05 each	$0.415 each	$0.57 each
1953	$4.15 each	$1.25 each	$1.05 each	$0.415 each	$0.57 each
1954	$4.15 each	$1.25 each	$0.90	- -	- -
1955	$4.15 each	$1.25 each	$1.05 each	$0.415 each	$0.57 each
1956	$4.15 each	$1.35 each	$1.10 each	$0.45 each	$0.60 each
1957	$4.15 each	$1.39 each	$1.10 each	$0.45 each	$0.635 each
1958	$0.21/lb.	$1.39 each	$1.10 each	$0.45 each	$0.635 each
1959	$0.22/lb.	$1.40 each	$1.10 each	$0.45 each	$0.635 each
1960	$0.23/lb.	$1.47 each	$1.15 each	$0.48 each	$0.68 each
1961	$0.23/lb.	$1.50 each	$1.25 C. R. $1.15 P.W.S.	$0.48 each	$0.68 each
1962	$0.23/lb.	$1.55 each	$1.35 C. R. $1.25 P.W.S.	$0.52 each	$0.76 each
1963	$0.23/lb.	$0.24/lb.	$0.15/lb.	$0.105 lb.	$0.875 lb.
1964	$0.23/lb.	$0.27/lb.	$0.15/lb.	$0.105 lb.	$0.875 lb.
1965 3/	$0.23/lb.	$0.27/lb.	$0.15/lb.	$0.0984 lb.	$0.0794 lb.
1966 4/	$0.23/lb.	$0.27/lb.	$0.16/lb.	$0.1024 lb.	$0.0824 lb.
1967 4/	$0.23/lb.	$0.28/lb.	$0.17/lb.	$0.1048 lb.	$0.0838 lb.
1968 4/	$0.23/lb.	$0.28/lb.	$0.19/lb.	$0.1048 lb.	$0.0838 lb.
1969 4/	$0.30/lb.	$0.30/lb.	$0.28/lb.	$0.0920 lb.	$0.1126 lb.
1970 4/	$0.30/lb.	$0.30/lb.	$0.30/lb.	$0.1170 lb.	$0.0955 lb.
1971	$0.36/lb.	$0.32/lb.	$0.225 C. R. $0.16 P.W.S.	$0.1203 lb.	$0.0983 lb.

* Data from 1934-1959, U. S. Bureau of Commercial Fisheries Annual Management Reports.

1/ Some varying prices paid each year by small operators. The prices listed here reflect major fish sales.

2/ From 1934 to 1951 the prices listed were paid to independent fishermen. Company fishermen received a lower price.

3/ Point Chehalis Packers paid the following prices delivered at the plant: King - 23¢/lb.; red - Copper River 30¢/lb., Eshamy 27¢/lb.; coho - 17¢/lb.; pink - 13¢/lb.; chum - 10.5¢/lb.

4/ A price differential was paid for pink and chum salmon after the salmon pack was sold. The differential paid fishermen in 1967 was $0.0425 for pinks, and $0.0392 for chums; in 1968, $0.0424 for pinks and $0.0351 for chums; in 1969, $0.0466 for pinks and $0.0366 for chums; in 1970, $0.0431 for pinks and $0.0358 for chums; in 1971 $0.0387 for pinks and $0.0291 for chums.

APPENDIX TABLE 3. Pounds and value to fishermen of shellfish landed in the Cordova area, 1960 - 1971. 1/

Year	Item	Dungeness Crab	King Crab	Tanner Crab	3/ Shrimp	Razor Clams	TOTAL
1960	Pounds	2,722,470	246,965		2,494	433,930	3,405,859
	Value	$ 272,247	$24,697		$3,118	$60,750	$ 360,812
1961	Pounds	2,756,194				261,628	3,017,822
	Value	$ 275,619				$39,244	$ 314,863
1962	Pounds	2,643,775	31,478		1,788	208,698	2,885,739
	Value	$ 317,253	$ 3,777		$2,235	$31,305	$ 354,570
1963	Pounds	3,234,383	43,569		275	86,340	3,364,567
	Value	$ 452,814	$ 5,228		$ 344	$12,951	$ 471,337
1964	Pounds	3,393,171	14,028		1,062	89,275	3,497,536
	Value	$ 475,044	$ 1,683		$1,328	$13,391	$ 491,446
1965	Pounds	2,174,287	5,631		138	86,477	2,266,533
	Value	$ 260,914	$ 676		$ 173	$17,295	$ 279,058
1966	Pounds	999,341	34,891			27,063	1,061,295
	Value	$ 109,928	$ 4,187			5,413	$ 119,528
1967	Pounds	2,529,288	47,019		374	98,446	2,675,127
	Value	$ 328,807	$ 6,112	2/	$ 561	$24,612	$ 360,092
1968	Pounds	2,280,310	192,509	298,427	3,433	72,806	2,847,485
	Value	$ 296,440	$86,629	$ 29,843	$5,150	$18,202	$ 436,264
1969	Pounds	1,413,993	48,080	936,444	2,573	26,887	2,427,977
	Value	$ 226,239	$16,828	$ 93,644	$3,860	$ 6,722	$ 347,293
1970	Pounds	742,732	94,341	1,288,308	9,888	27,909	2,163,178
	Value	$ 103,982	$26,415	$ 141,714	$14,832	$ 6,977	$ 293,920
1971	Pounds	509,899	144,240	642,340	6,537	37,972	1,340,988
	Value	$ 91,782	$43,272	$ 70,657	$ 9,805	$ 9,493	$ 225,009

1/ Data from Alaska Department of fish and Game Annual Management Reports.
2/ This is the first year of catches on record from Prince William Sound.
3/ Pounds, heads off.

APPENDIX TABLE 4. Prices paid to fishermen for shellfish and miscellaneous fish and fish products, 1935 - 1971. *

Year	Dungeness Crab	King Crab	Tanner Crab	Razor Clams	Cockles	Halibut	Salmon Eggs	Herring
1935				$0.05/lb. 1/				
1937				$0.055/lb. 1/				
1938				$0.055/lb. 1/				
1939				$0.05/lb.				
1940				$0.05/lb.				
1943	$0.075 ea.			$0.0675/lb.				
1944	$0.075 ea.			$0.0675/lb.				
1945	$0.075 ea.			$0.0675/lb.				$2.40 2/
1946	$0.14 ea.			$0.09/lb.	$6.00 3/	$0.12-0.13/lb.		
1947	$0.05/lb.			$0.095/lb.	$4.50	$0.13-0.14/lb.		
1948	$0.12 ea.			$0.105/lb.	$6.00	$0.10-0.16/lb.		
1949	$0.12 ea.			$0.12/lb.	$6.00			
1950	$0.12 ea. 4/			$0.12/lb.	$6.00			
1951	$0.085/lb.			$0.15/lb.	$8.00			
1952	$0.085/lb.			$0.13/lb.				
1953	$0.085/lb.			$0.13/lb.				
1954	$0.08/lb.			$0.13/lb.				
1955	$0.08/lb.			$0.13/lb.				
1956	$0.08/lb.			$0.13/lb.	$0.03/lb.			
1957	$0.05/lb.			$0.13/lb.			$0.07/lb.	
1958	$0.06/lb.			--	Herring Spawn On Kelp			
1959	$0.08/lb.	$0.08/lb.		$0.13/lb.				
1960	$0.10/lb.	$0.10/lb.		$0.14/lb.				
1961	$0.10/lb.	$0.10/lb.		$0.15/lb.				
1962	$0.12/lb.	$0.12/lb.		$0.15/lb.				
1963	$0.14/lb. 5/	$0.12/lb.		--				
1964	$0.14/lb. 5/	$0.12/lb.		$0.20/lb.				
1965	$0.12/lb. 6/	$0.12/lb.		$0.20/lb.		$0.16/lb.		
1966	$0.11/lb.	$0.12/lb.		$0.20/lb.				
1967	$0.13/lb.	$0.13/lb.		$0.25/lb. 7/				
1968	$0.13/lb. 8/	$0.36-0.50 9/	$0.10	$0.25/lb.				
1969	$0.16/lb.	$0.25-0.45 9/	$0.10	$0.25/lb.				
1970	$0.14/lb.	$0.28/lb.	$0.11	$0.25/lb.	$0.50/lb.	$0.25-30/lb.		$4.00/50# bag
1971	$0.18/lb.	$0.30/lb.	$0.11	$0.25/lb.	$0.50/lb.	$0.25/lb.		$35.00/ton

* Data from 1935-1959, U. S. Bureau of Commercial Fisheries Annual Management Reports. 1/ Prices paid to independent fishermen. Lower prices paid to Company fishermen. 2/ Price paid per 250 pound barrel. 3/ Price paid per 100 pound sack. 4/ Prices for Dungeness crab, $0.14-0.15 caught in "outside" waters. 5/ Prices decreased to $0.12 September 1st. 6/ Sliding scale - 9 % of the meat price in Seattle, determined every two weeks. 7/ Price per pound prior to June 1st was $0.20. 8/ Late in the season price raised to $0.15. 9/ Prices varied throughout the season from a low of $0.36 to a high of $0.50 in 1968 and $0.25 to $0.45 per pound in 1969.

APPENDIX TABLE 5. Number of salmon per case, 1945 - 1971. * 1/

Year	King	Red	Coho	Pink	Chum
1945	3.5	11.66	7.75	23.5	11.25
1946	3.2	11.80	9.9	25.1	10.5
1947	3.92	11.1	8.0	21.4	11.0
1951 2/	3.4	11.6	8.1	18.1	9.1
1952 2/	3.4	11.6	8.1	18.1	9.1
1953	3.4	11.1	7.0	16.5	9.1
1954	3.2	11.7	7.5	16.5 2/	
1955	3.5	11.5	8.6	15.0	8.7
1956	3.6	11.2	8.3	26.0	10.2
1957	3.8	11.6	10.5	17.4	8.5
1958	3.0	11.5	8.3	17.0	9.1
1959	3.2	12.9	8.6	SEASON CLOSED	
1960	3.6	13.4	9.3	24.4	9.8
1961	3.82	12.0	9.24	17.0	9.3
1962	3.26	11.04	10.92	24.14	10.71
1963	3.08	12.21	7.9	22.89	9.14
1964 3/	2.86	13.52	6.89	22.39	8.23
1965 3/	3.17	12.69	10.31	25.43	10.23
1966 3/	2.82	11.01	7.60	19.57	10.65
1967 4/	2.71	10.87	10.64	19.02	9.43
1968 4/	2.70	12.20	7.80	21.59	8.68
1969 4/	2.71	11.53	8.17	20.86	8.36
1970 4/	2.35	11.19	8.11	21.36	9.60
1971 4/	3.00	10.64	10.83	21.32	11.36

* Number of salmon per case reflect primarily Copper River for kings and reds, and Prince William Sound for pinks and chums.

1/ Data from 1945 - 1957, U. S. Bureau of Commercial Fisheries Annual Management Reports.

2/ Taken from average of other years.

3/ Data from Parks Canning Company, execpt in 1965 the pinks averaged for all canneries.

4/ Data from New England Fish Company.

APPENDIX TABLE 6. Bering River commercial salmon catch, 1896 - 1926, 1951 - 1971. 1/

Year	Red	King	Coho
1896	23,980		
1897	39,269		
1898	39,383		
1899	27,072		
1900	106,167		
1901	NO CATCH REPORTED		
1902	NO CATCH REPORTED		
1903	NO CATCH REPORTED		
1904	123,400	400	
1905	NO CATCH REPORTED		
1906	54,074	111	
1907	NO CATCH REPORTED		
1908	NO CATCH REPORTED		
1909	NO CATCH REPORTED		
1910	NO CATCH REPORTED		
1911	NO CATCH REPORTED		
1912	41,023		8,000
1913	38,519		
1914	10,202		
1915	105,614	4	
1916	141,278	7	51,938
1917	163,357	321	78,412
1918	173,021	139	80,218
1919	139,792	72	76,729
1920	162,582	120	63,865
1921	120,667	3	
1922	131,179	72	
1923	192,361	86	24,723
1924	87,114	111	80,030
1925	52,632	77	57,018
1926	37,424	76	52,668
1951	3,591	34	46,306
1952			13,642
1953	8,572	26	
1954	129		91,964
1955	34,121	125	70,100
1956	41,437	147	53,484
1957	29,142	71	27,441
1958	23,947	72	21,202
1959	27,384	77	58,560
1960	32,890	63	68,255
1961	55,084	29	50,883
1962	72,230	246	55,502
1963	21,525	172	87,507
1964	16,911	44	77,360
1965	13,536	7	52,162

APPENDIX TABLE 6, cont. Bering River commercial salmon catch, 1896 - 1926, 1951 - 1971. 1/

Year	Red	King	Coho
1966	24,894	36	49,580
1967	11,464	13	46,135
1968	26,136	10	67,310
1969	38,093	44	4,033
1970	23,539	26	79,264
1971	36,776	105	88,231

1/ From 1927 - 1950 catches are included in the Copper River catch totals.

From 1896 to 1927, data is from "Statistical Review of the Fisheries", Part III: Prince William Sound, Copper River and Bering River, Willis H. Rich and Edward M. Ball, 1932, U. S. Department of Commerce, Bureau of Commercial Fisheries, Bulletin No. 7.

From 1928 to 1955, data is from Manuscript Report 1964, "The Red Salmon of Copper River, Alaska", Seton H. Thompson.

From 1956 to 1971, data is from U. S. Fish and Wildlife Service and Alaska Department of Fish and Game.

APPENDIX TABLE 7. Copper River commercial salmon catch, 1889 - 1971. 1/

Year	Red	King	Coho
1889	242,790		
1890	411,190	5,491	
1891	710,740	6,185	
1892	NO CANNERIES OPERATING		
1893	792,690	8,674	72,000
1894	710,000	8,494	17,000
1895	507,630	10,248	142,937
1896	714,595	1,407	31,862
1897	371,487	2,044	25,605
1898	417,171	1,850	
1899	527,122	4,682	
1900	748,310	3,462	88,175
1901	781,438	6,558	
1902	800,044	2,500	
1903	814,345	4,600	
1904	501,630	5,014	
1905	320,000	20,000	
1906	265,378	2,165	
1907	263,557	869	
1908	466,414		
1909	316,688	3,067	
1910	221,993	974	18,149
1911	407,559	1,358	33,660
1912	456,390	6,181	36,238
1913	404,914	2,307	
1914	570,959	3,043	42,192
1915	818,728	7,334	12,098
1916	569,531	14,259	118,267
1917	919,818	13,930	126,073
1918	1,492,356	19,627	74,379
1919	1,328,643	13,266	53,468
1920	854,624	22,997	73,924
1921	570,291	11,466	377
1922	505,775	10,075	
1923	625,875	10,339	
1924	790,835	15,862	41,889
1925	160,721	19,728	153,376
1926	211,341	21,338	177,781
1927 2/	341,291	35,598 *	410,350
1928 3/	584,319	42,144 *	
1929	918,065	43,866 *	
1930	805,999	23,181 *	
1931	804,497	35,268 *	109,319 *
1932	828,920	29,403 *	
1933	645,540	14,073 *	96,263 *
1934	975,916	10,407 *	
1935	111,579	2,352 *	79,722 *
1936	862,789	6,939 *	
1937	1,024,416	11,538 *	45,535 *
1938	767,721	7,614 *	
1939	633,733	6,555 *	6,809 *
1940	435,993	3,876 *	266,892 *

APPENDIX TABLE 7, cont. Copper River commercial salmon catch, 1889 - 1971. 1/

Year	Red	King	Coho
1941	432,941	9,225 *	700,086 *
1942	562,092	15,762 *	710,014 *
1943	700,439	14,670 *	186,380 *
1944	769,552	7,638 *	294,619 *
1945	823,805	18,063 *	349,580 *
1946	538,407	23,329	219,853 *
1947	352,077	15,182	188,965 *
1948	168,724	4,367	243,848 *
1949	441,776	9,300	136,876 *
1950	800,451	17,777	171,690 *
1951	451,943	17,439	154,418
1952 4/	1,136,316	29,355	177,382
1953	563,708	12,198	29,866
1954	1,099,564	15,764	157,941
1955	636,705	20,438	158,208
1956	540,575	11,702	109,248
1957	541,637	8,151	58,705
1958	307,342	6,965	81,610
1959	299,782	9,833	132,259
1960 5/	593,824	14,052	118,395
1961	528,223	7,621	133,987
1962	677,626	14,792	174,628
1963	375,925	10,871	202,621
1964	699,548	12,751	242,666
1965	818,277	15,390	70,786
1966	1,005,615	11,422	116,147
1967	679,503	9,853	160,532
1968	573,270	9,743	230,867
1969	696,836	14,040	77,405
1970	1,115,695	19,375	161,892
1971	616,801	16,486	208,915
1972			
1973			

1/ From 1889 to 1927, data is from "Statistical Review of the Fisheries", Part III: Prince William Sound, Copper River and Bering River, Willis H. Rich and Edward M. Ball, 1932, U. S. Department of Commerce, Bureau of Commercial Fisheries, Bulletin No. 7.

2/ From 1927 to 1950, Bering River catches are included.

3/ From 1928 to 1951, data is from Manuscript Report 1964, "The Red Salmon of Copper River, Alaska", Seton H. Thompson.

4/ From 1952 on, data is from INPFC publications.

5/ From Alaska Department of Fish and Game field data.

* Based on 3 kings per case, and 8.5 coho per case.

APPENDIX TABLE 8. Subsistence fishery Upper Copper River, 1948 - 1971. 1/ 6/

Year	No. Permits Issued	Reds	Kings	Cohos	Pinks*	Chums*	Other 5/	Unknown	Total
1948 2/								5,100	5,100
1949 2/								5,500	5,500
1952 3/		1,601	535						2,136
1954 4/		3,057	88				1		3,145
1955 7/		1,767	319						2,086
1957 3/		7,241	281	108			123		7,753
1960	60	6,739	136	25	15	167	100		7,182
1961	194	15,472	388	550	188	88	639	87	17,412
1962	375	14,543	848	381	50	49	3	148	16,022
1963	295	14,055	464	558	52	48	23		15,200
1964	1,002	11,915	725	103			507		13,250
1965	1,127	12,760	644	52			964		14,420
1966	1,319	16,718	555				303		17,576
1967	1,327	14,457	419				194		15,070
1968	1,378	14,819	644	233			142		15,838
1969	1,582	27,604	719	224			22		28,569
1970	3,487	36,500	427	554			81		37,562
1971	4,542	37,485	1,363	363			52		39,263

1/ Data from years 1948, 1949, 1952, 1954, 1955, 1957, 1960 to 1971. Other years not reported.
2/ Estimated catches probably obtained by interview.
3/ Reported catch.
4/ Data from sample checks of fish wheels. Observations of fish in boxes of wheels, drying racks and reports of fishermen.
5/ Includes rainbow, whitefish, lamprey, grayling and steelhead.
6/ Refer to individual annual reports for information concerning delinquent reports and permittees who indicated they did not fish.
7/ Estimated catches obtained by interview from 13 fish wheel fishermen.
* No record or knowledge of Upper Copper River ever having pinks and chums.

APPENDIX TABLE 9. Prince William Sound commercial salmon catches from inception of the fishery, 1889 to 1971.

Year	Coho	Chum	Pink	King	Red
1889 1/					242,790
1890				5,491	411,190
1891				6,185	710,740
1892				8,674	792,690
1893	72,000			8,494	710,000
1894	17,000			10,248	507,630
1895	142,937			1,407	714,595
1896	31,862		308,180	2,044	371,487
1897	25,605		302,290	1,850	417,171
1898			375,246	4,682	527,122
1899			212,907	3,462	748,310
1900	88,175		50,565	6,558	781,438
1901			313,806	2,500	800,044
1902			375,408	4,600	814,345
1903			398,926		
1904			573,967	253	109,200
1905					100,000
1906					60,578
1907			252,373		17,692
1908			18,018		117,018
1909					150,412
1910	14,411		196,871		68,122
1911	20,284		156,349		23,130
1912	15,563	405	401,892		47,549
1913	406	70	425,574	1,003	75,412
1914	13,001		224,906		72,348
1915	6,915	2,175	449,174		52,111
1916	47,746	45,918	3,270,282	6	72,321
1917	44,557	370,309	2,590,563	364	222,154
1918	100,247	1,341,887	4,302,646	557	249,092
1919	72,836	558,522	1,008,312	6,930	152,682
1920	89,378	260,963	5,314,747	6,408	129,655
1921 *	9,316	3,499	12,644		92,571
1922	8,962	50,517	2,421,272	286	140,736
1923	26,889	111,582	2,447,006	530	170,050
1924	69,431	385,251	8,395,901	1,219	158,484
1925	84,408	780,956	4,085,084	3,325	96,703
1926	78,607	587,351	11,153,663	2,153	157,313
1927	258,816	655,159	6,124,9111	3,094	118,118
1928 2/	190,350	468,260	8,034,200	4,018	183,144
1929	66,066	1,282,150	9,613,500	900	264,960
1930	107,622	979,800	6,776,860	2,195	207,108
1931	56,547	607,420	6,415,800	812	250,764
1932	97,434	333,090	3,272,180	4,795	319,908
1933	74,853	316,720	3,016,300	2,531	153,432
1934	122,949	344,210	6,546,960	2,503	174,588
1935	31,023	532,260	3,430,600	2,174	193,152
1936	47,205	236,600	9,569,150	1,509	161,280
1937	59,859	219,410	3,764,897	1,152	101,904
1938	61,614	312,180	7,838,938	879	127,380
1939	34,722	287,560	2,162,500	900	148,680
1940	92,313	540,010	11,217,518	637	84,780

APPENDIX TABLE 9, cont. Prince William Sound commercial salmon catches from inception of the fishery, 1889 to 1971. **

Year	Coho	Chum	Pink	King	Red
1941	57,870	737,760	3,341,908	350	84,996
1952	123,327	826,330	7,669,569	1,572	159,468
1943	74,133	306,200	11,259,996	9,083	111,420
1944	71,118	1,181,590	8,670,423	553	152,892
1945	44,469	1,540,800	12,139,224	357	208,584
1946	144,333	760,030	8,504,417	1,428	125,184
1947	64,332	650,190	8,398,398	504	196,488
1948	45,432	470,080	2,625,076	259	229,380
1949	117,144	831,950	6,180,384	585	101,076
1950	111,969	574,640	1,793,330	308	86,148
1951 3/	47,636	549,206	802,892	3,636	208,065
1952	51,130	549,663	2,161,556	111	74,324
1953	37,012	352,714	1,996,413	72	49,252
1954 *	436	6,071	12,142	1	6,185
1955 *	596	4,662	26,873		12,924
1956	34,850	507,199	4,525,408	492	156,336
1957	20,935	705,642	649,001	968	66,468
1958	22,555	687,266	6,289,924	12,041	13,821
1959 *	1,123		229	1,447	
1960 4/	30,722	381,858	1,841,899	1,580	35,176
1961	3,335	221,951	2,287,766	406	55,551
1962	31,908	891,880	6,742,316	1,830	54,468
1963	48,661	942,900	5,295,378	2,293	60,304
1964	30,969	539,047	4,206,896	71	66,974
1965	45,211	201,043	2,460,471	1,099	116,092
1966	23,908	426,628	2,699,418	650	99,714
1967	40,569	274,234	2,626,340		45,515
1968	11,660	350,630	2,451,668	3,414	123,516
1969	12,866	320,977	4,828,579	3,340	285,584
1970	11,485	230,661	2,809,996	1,031	104,169
1971 ***	26,185	576,706	7,359,825	1,135	88,331
1973	1,022	565,497	1,833,289	347	124153

1/ From 1889 to 1927, data is from "Statistical Review of the Alaska Salmon Fisheries", Part III: Prince William Sound, Copper River and Bering River, Willis H. Rich and Edward M. Ball, 1932, U. S. Department of Commerce, Bureau of Commercial Fisheries, Bulletin No. 7. (Data from 1889-1903 is combined catches from Prince William Sound and Copper River. Coho are probably mainly pinks).

2/ From 1928 to 1950, data is from, U. S. Fish and Wildlife Service, "Alaska Fishery and Fur Seal Industries" estimates of pink catch from case pack data by W. H. Noerenberg's "Prince William Sound Spawning Ground Survey, 1954", Univ. of Washington, Fisheries Research Institute, Circular No. 69, October 22,1954. Other species estimated on the basis of 9 coho, 10 chum, 3.5 kings and 12 reds per case.

3/ From 1951 to 1959, data is from U. S. Fish and Wildlife Service, Alaska Commercial Salmon Catch Statistics, Statistical Digest No. 50, By Robert R. Simpson, 1960.

4/ Data from 1960 on is from Alaska Department of Fish and Game.

* Catch these years not indicative of abundance due to economic or other reasons.

** Data for years 1962 to 1967 and 1970 corrected to INPFC data reports.

*** Preliminary.

APPENDIX TABLE 10. Prince William Sound salmon case pack from inception of the fishery, 1889 to 1971.

Year	Coho	Chum	Pink	King	Red
1889 1/					20,233
1890				1,569	34,266
1891				1,767	59,228
1892				2,478	66,058
1893	8,000			2,427	59,167
1894	1,889			2,928	42,303
1895	15,882			402	59,550
1896	3,540		15,409	584	30,957
1897	2,845		15,115	529	34,764
1898			18,762	1,338	43,927
1899			10,645	989	62,359
1900	9,797		2,528	1,874	65,120
1901			15,690	714	66,670
1902			18,770	1,314	67,862
1903			19,946		
1904			28,698	72	9,100
1905					8,333
1906					5,048
1907			12,619		1,474
1908			901		9,752
1909					12,534
1910	1,601		9,844		5,677
1911	2,254		7,817		1,928
1912	1,729	41	20,095		3,962
1913	45	7	21,279	287	6,284
1914	1,445		11,245		6,029
1915	768	218	22,459		4,343
1916	5,305	4,592	163,514	2	6,027
1917	4,951	37,031	129,528	104	18,513
1918	11,139	134,189	215,132	159	20,758
1919	8,093	55,852	50,416	1,980	12,724
1920	9,931	26,096	265,737	1,831	10,805
1921	1,035	350	632		7,714
1922	996	5,052	121,064	82	11,728
1923 2/	1,525	10,579	134,876	64	15,028
1924	12,922	39,121	381,506	51	8,814
1925	9,466	67,732	233,899	287	8,113
1926	11,457	59,938	618,698	125	15,094
1927	19,108	61,845	405,869	1,029	12,930
1928	21,150	46,826	472,611	1,148	15,262
1929	7,334	128,215	565,841	257	22,080
1930	11,958	97,980	405,845	627	17,259
1931	6,283	60,742	377,367	232	20,897
1932	10,826	33,309	207,109	1,370	26,659
1933	8,317	31,672	194,646	723	12,786
1934	13,661	34,421	389,676	715	14,549
1935	3,447	53,226	201,756	621	16,096
1936	5,245	23,660	609,537	431	13,440
1937	6,651	21,941	182,762	329	8,492
1938	6,846	31,218	461,114	251	10,615
1939	3,858	28,756	129,491	257	12,390
1940	10,257	54,001	521,745	182	7,065

APPENDIX TABLE 10, cont. Prince William Sound salmon case pack from inception of the fishery, 1889 to 1971.

Year	Coho	Chum	Pink	King	Red
1941	6,430	73,776	217,007	100	7,083
1942	13,703	82,633	366,965	449	13,289
1943	8,237	30,620	511,818	2,595	9,285
1944	7,902	118,159	416,848	158	12,741
1945	4,941	154,080	493,482	102	17,382
1946	16,037	76,003	317,329	408	10,432
1947	7,148	65,019	380,018	144	16,374
1948	5,048	47,008	123,411	74	19,115
1949	13,016	83,195	275,830	167	8,423
1950	12,441	57,464	111,838	88	7,179
1951 3/	5,295	54,942	47,809	1,469	19,996
1952	5,508	66,254	115,451	5	6,997
1953	4,085	34,552	122,236	37	4,929
1954	56	695	746		654
1955	63	550	1,795		1,346
1956	3,313	48,772	185,664	31	15,442
1957	1,892	74,716	35,431	171	6,322
1958	597	77,922	358,860	6	1,117
1959 *	124		11	413	
1960 4/	1,267	39,711	70,554	2	2,701
1961	1,221	24,129	135,189	106	6,589
1962	1,457	81,856	270,797	33	5,454
1963	3,914	101,561	228,077	119	5,835
1964	4,487	63,392	187,114	16	2,773
1965	1,345	19,435	93,870	345	9,880
1966	2,225	43,271	146,069	50	10,599
1967	1,590	27,824	137,030	37	1,908
1968	1,318	40,395	113,556	1,269	11,522
1969	922	40,751	167,252	817	29,343
1970 5/	1,237	18,931	127,867	518	9,269
1971	3,229	39,413	203,438	324	7,894

1/ Data from 1889 to 1922 is from "Statistical Review of the Alaska Salmon Fisheries", Part III: Prince William Sound Copper River and Bering River, Willis H. Rich and Edward M. Ball, 1932, U. S. Department of Commerce, Bureau of Commercial Fisheries, Bulletin No. 7. (The case pack is estimated on the basis of 9 coho, 10 chums, 20 pinks, 3.5 kings and 12 reds, 48 one pound cans per case).

2/ Data from 1923 to 1950 is from, "Alaska Fishery and Fur-Seal Industries", U. S. Department of Commerce, Bureau of Commercial Fisheries. (Data from 1923 to 1950 also includes catches from Resurrection Bay).

3/ Data from 1951 to 1959 is from U. S. Fish and Wildlife Service, Bureau of Commercial Fisheries Annual Management Reports.

* Troll catches. (Cases estimated on the basis of 9 coho, 20 pinks and 3.5 kings, 48 one pound cans per case.

4/ Data from 1960 on is from Alaska Department of Fish and Game.

5/ Case pack of chums and pinks from weekly pack reports of processors. Other species estimated on the basis of 8.11 cohos, 3.5 kings and 11.19 reds, 48 one pound cans per case.

APPENDIX TABLE 11. Annual estimated salmon spawning escapement in Prince William Sound streams, 1927 - 1971. 1/

Year	Red	Pink	Chum
1927		1,086,383	
1928		922,671	264,230
1929		729,444	443,503
1930		1,502,939	478,498
1931 2/		606,176	349,566
1937		869,217	156,969
1938		1,279,434	140,315
1939		409,708	152,598
1940		982,131	45,050
1941		615,545	40,447
1942		1,109,128	40,050
1943		862,026	122,300
1944		932,423	140,550
1945		1,245,224	191,770
1946		967,706	44,103
1947		590,980	50,005
1948		360,534	92,813
1949		426,827	148,658
1950		356,150	82,114
1951	74,571	457,066	277,750
1952	52,693	248,290	124,902
1953	9,088	289,229	138,686
1954	5,900	1,438,738	199,733
1955	21,561	587,136	93,752
1956	53,375	1,349,000	176,696
1957	53,647	154,000	269,443
1958	6,644	857,000	82,275
1959	14,608	601,000	175,700
1960	166,515	1,350,823	201,877
1961	104,255	2,203,800	341,199
1962	41,080	2,001,220	486,858
1963	80,480	1,344,710	371,100
1964	114,839	1,844,690	442,550
1965	210,260	975,960	195,640
1966	111,600	1,299,530	223,540
1967	35,040	1,227,370	187,500
1968	92,170	1,083,900	195,560
1969	158,700	1,127,900	163,050
1970	48,560	951,660	101,100
1971	35,500	2,115,440	166,580

1/ From U. S. Fish and Wildlife Service aerial and ground surveys, 1927 - 1951; Fisheries Research Institute ground surveys, 1952 - 1959; and, Alaska Department of Fish and Game aerial and ground surveys, 1960 - 1971.

2/ No records for years 1932 - 1936, only general statements.

APPENDIX TABLE 12. Aerial and ground estimates and weir counts of salmon in Shrode Creek, 1924 - 1971. 1/

Year	Reds	Pinks
1924 2/		few
1925		25,000
1926		35,000
1927		40,000
1928		25,000
1929		48,000
1930		16,000
1931		9,000
1936		50,000
1937		75,000
1938		80,000
1939		6,000
1940		9,000
1941		700
1942		14,000
1943		6,000
1944		12,000
1945		55,000
1946		1,400
1947		7,000
1948		20,000
1949		18,000
1950		6,000
1951		15,000
1952 3/		1,700
1953		19,000
1954		7,100
1955		4,100
1956		3,000
1957		40
1958		300
1959		1,100
1960		1,090
1961		19,000
1962		15,000
1963		125,000
1964		7,000
1965		89,000
1966		160
1967		241,750
1968 4/	7,315	1,270
1969	1,516	82,305
1970	500	319
1971	300	12,616

1/ Data from 1924 to 1959 from, "Evaluation of Shrode Creek Fishway", U. S. Forest Service, R-10, Juneau, Alaska, 1967.
2/ From 1924 to 1951 estimates for total stream escapement.
3/ From 1952 to 1967 estimates of escapement above the falls.
4/ From 1968 on, above falls count at weir.

APPENDIX TABLE 13. Dungeness crab catch from inception of the fishery, 1928 - 1971. 1/

Year	Canned (48-1/2# Cs.)	Number Crabs	Number Pounds
1928 2/			52,000 5/
1931			90,000 5/
1934	15,527		
1935	2,627		
1936 3/		508,799 7/	1,017,598 7/
1937	20,957	1,184,419	2,368,838
1938		665,720	1,331,440
1939		585,804	1,171,608
1940	5,222	540,757	1,081,514
1941	7,753 (approx.)	1,057,701	2,115,402
1942	7,056 "	305,952	611,904
1943	7,418 "	291,211	582,422
1944	13,857 "	491,485	982,970
1945	15,842 " 6/	813,617	1,627,234
1946	12,473 "	1,110,314	2,220,628
1947	8,102	832,451	1,664,902
1948	4,738	743,435	1,486,870
1949	8,932	803,302	1,606,604
1950	10,606	1,438,510	2,877,020
1951	9,277	1,338,569 8/	2,677,138 8/
1952	1,524	509,288	1,018,576
1953	550	627,942	1,255,884
1954	513	752,855	1,505,710
1955	115	982,414	1,964,829
1956	452	406,422	812,844
1957	210	108,562	217,123
1958		596,459	1,192,918
1959	5,906	1,247,143	2,494,287
1960 4/	2,100	1,361,235	2,722,470
1961	15,923	1,378,097	2,756,194
1962	14,759	1,321,887	2,643,775
1963 9/	11,587	1,456,297	3,234,383
1964 10/		1,516,978	3,393,171
1965 10/		1,021,072	2,174,287
1966		499,671	999,341
1967		1,264,644	2,529,288
1968		1,140,156	2,280,310
1969 10/		644,837	1,413,993
1970		371,366	742.732
1971		254,944	509,889

1/ Some fishing and processing occurred earlier than 1928 but reports of catches not available. See Pacific Fisherman Yearbook prior to 1928.

2/ Data from 1928 to 1963 for pounds of picked meat and canned crab from Pacific Fishermen Yearbooks.

3/ Data from 1936 to 1959 for number of crab and pounds from U. S. Bureau of Commercial Fisheries Annual Management Reports.

APPENDIX TABLE 13. cont. Dungeness crab catch from inception of the fishery, 1928 - 1971. 1/

4/ Data from 1960 to 1971 from Alaska Department of Fish and Game Commercial Fisheries records.
5/ Pounds of picked meat.
6/ Some of this pack was from Hoonah.
7/ A two pound average was used to convert crabs to pounds for the years 1936 to 1950.
8/ A two pound average was used to convert pounds to crab for the years 1951 to 1971 except as otherwise noted.
9/ Pounds converted to crab on the basis of 2.25 pounds per crab.
10/ Pounds converted to crab on the basis of 2.33 pounds per crab.
11/ First outside (Gulf) fishing this year.

APPENDIX TABLE 14. King crab catch in pounds, live weight, and cases from inception of the fishery, 1959 - 1971. 1/

Year	Pounds	Cases 2/ (48-1/2#)
1959	30,929	
1960	246,965	
1961		2,863
1962	31,478	431
1963	43,569	152
1964	14,028	
1965	5,631	
1966	34,891	
1967	47,019	
1968	192,509	
1969	48,080	
1970	94,341	
1971	144,240	

1/ Prior to 1959, king crab fishing amounted to an occassional experimental pack of one or two cases. No reports of catches are available prior to 1959.

2/ Data from Pacific Fisherman Yearbooks.

APPENDIX TABLE 15. Tanner crab catch in pounds, live weight, from inception of the fishery, 1968 - 1971.

Year	Pounds
1968 1/	298,427
1969	936,444
1970	1,288,308
1971	642,340

1/ This is the first year of catches on record from Prince William Sound.

APPENDIX TABLE 16. Herring catch and production from Prince William Sound from inception of the fishery to 1971. 1/, 2/, 3/, 4/

Year	Barrels Cured	Gallons Oil	Tons Meal	Pounds Of Herring For Roe	Pounds Kippered, etc.	Pounds Bait	Pounds Spawn On Kelp	Total Catch In Barrels
1914	214							
1918	22,263							
1919	18,075							
1920	15,275							
1921	37,353							
1922	72,608							
1923	37,966							
1924	18,989							
1925	9,689							
1926	4,643							
1927	12,707							
1928	8,513							
1929	477							
1930	4,006							
1931	6,498	226,153	773					
1932	6,753	363,058	1,256		410			
1933	9,973	468,528	1,720					
1934	8,073	811,033	2,564					
1935	20,982	1,283,225	5,087					
1936		1,426,323	5,546					
1937	2,366	2,164,207	6,998					384,000
1938	2,415	2,386,822	8,860					
1939	4,205	2,227,343	7,864		190,445			422,179
1940	3,323	1,262,207	432		16,750			255,723
1941	1,062	1,166,459	503					272,377
1942		60,000	26					13,893
1943	REPORTS NOT COMPLETE							8,008
1944								83,965
1945	697	395,015	1,487					79,952
1946	203	453,700	2,100					103,469
1947								NONE
1948		907,166	2,862			300,000 est.		163,278

APPENDIX TABLE 16, cont. Herring catch and production from Prince William Sound from inception of the fishery to 1971. 1/, 2/, 3/, 4/

Year	Barrels Cured	Gallons Oil	Tons Meal	Pounds Of Herring For Roe	Pounds Kippered, etc.	Pounds Bait	Pounds Spawn On Kelp	Total Catch In Barrels
1949	NO PRICE SETTLEMENT							
1950								190,634
1951						305,350		178,468
1952								26,488
1953								4.268
1954								75,339
1955								80,811
1956								119,734
1957								100,677
1958								31,136
1959								682
1960								NONE
1961						27,625		
1962						124,000 est.		
1963								
1964								
1965								
1966								
1967						60,000		
1968								
1969				711,305			5,449	
1970						20,000	190,370	
1971				1,838,470		40,053	769,481	

1/ Data from 1914 - 1930 from Pacific Fisherman Yearbook. Barrels of cured salmon only separated by area. Catches reported do not include herring reduced to oil and meal.

2/ Data from 1931 - 1959 from U. S. Bureau of Commercial Fisheries Annual Management Reports. Refer to "Annual Report for 1952", Alaska Department of Fisheries, Juneau, Alaska for additional data.

3/ Data from 1960 - 1971 from Alaska Department of Fish and Game records.

4/ For additional data on catch refer to, "Fluctuations in the Supply of Herring Clupea Pallasii in Prince William Sound, Alaska", By George A. Rounsefell and Edwin H. Dalhgren, Bull. No. 9 U. S. Bureau of Fisheries, 1932; and, Statistics of the Alaska Herring Fishery, 1878 - 1956, Statistical Digest No. 48, By Bernard E. Skud, Henry M. Sakuda and Gerald M. Reid, U. S. Fish & Wildlife Service, Bureau of Commercial Fisheries.

APPENDIX TABLE 17. Razor clam case pack and dig in pounds from inception of the fishery, 1918 - 1971.

Year	Cases 1/ 48/1/2 lbs.	Dig 2/ Live Weight
1918	125,266	
1919	31,118	
1920	7,824	
1921		
1922	12,647	
1923	30,106	
1924	37,169	
1925	45,730	
1926	12,458	
1927	8,329	
1928	7,361	
1929	10,601	
1930	12,109	
1931	20,221	1,357,114
1932	25,582	1,833,358
1933	10,014	845,746
1934	30,993	1,233,836
1935	21,529	826,421
1936		957,549
1937	28,697	1,423,933
1938		1,315,631
1939		1,540,607
1940	41,242	1,449,299
1941	19,881	906,461
1942	46,703	1,327,390
1943	48,730	1,671,602
1944	45,587	1,647,733
1945	45,190	1,657,722
1946	48,145	1,746,203
1947	15,830	606,540
1948	30,548	1,154,903
1949	36,804	1,478,255
1950	40,395	1,520,416
1951	40,423	1,535,119
1952	30,946	1,265,430
1953	38,364	1,485,937
1954	31,367	1,216,758
1955	44,817	1,377,109
1956	21,330	707,349
1957	27,560	1,017,418
1958 3/		32,395
1959	12,825	507,731
1960		433,930
1961	5,994	261,628
1962	3,398	208,698
1963 4/	37	86,340
1964		89,275
1965		86,477
1966		27,063
1967		98,446
1968		72,806
1969		26,887
1970		27,909
1971		37,972

1/ Case pack data from Pacific Fisherman Yearbooks. Cases converted to basis of 48-1/2 pound cases.

2/ Data from 1931 to 1959, U. S. Bureau of Commercial Fisheries Annual Management Reports; 1960 - 1971, from Alaska Department of Fish and Game records.

3/ Strike this year.

4/ Alaska Packers Association quit canning razor clams in 1962. Razor clam digs in subsequent years used primarily for crab bait.

APPENDIX TABLE 18. Comparable commercial fishing license statistics, Prince William Sound area, 1960 - 1971. 1/ 2/

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
COMMERCIAL												
Resident	601	497	621	728	541	582	653	615	655	763	759	980
Nonresident	566	247	470	574	304	311	330	290	253	321	414	436
	1167	744	1091	1302	845	893	983	905	908	1084	1173	1416
VESSEL												
Resident	493	452	525	590	477	458	529	500	506	557	609	704
Nonresident	312	196	281	327	214	192	166	193	160	173	127	207
	805	648	806	917	691	650	695	693	666	730	736	911
TROLL												
Resident	15	9	6	9	9	3	5	16	23	15	21	21
Nonresident	1	0	2	1	3	0	1	2	2	3	5	0
	16	9	8	10	12	3	6	18	25	18	26	21
LONG LINE												
Resident	6	7	11	13	15	10	36	7	21	29	35	58
Nonresident	2	0	3	5	2	3	2	0	4	4	3	0
	8	7	14	18	17	13	38	7	25	33	38	58
DRIFT GILL NET												
Resident	263	293	315	375	282	298	327	349	347	369	426	479
Nonresident	167	127	170	202	133	132	120	136	116	138	137	173
	430	422	485	577	415	430	447	485	463	507	563	652
SET GILL NET												
Resident	7	42	40	17	23	35	46	10	11	37	35	14
Nonresident	7	8	18	1	2	5	1	1	1	5	3	0
	14	50	58	18	25	40	47	11	12	42	38	14
PURSE SEINE												
Resident	142	97	163	189	167	157	158	146	154	171	175	212
Nonresident	92	23	75	98	65	40	36	43	38	42	44	54
	234	120	238	287	232	197	194	189	192	213	219	266
SHELLFISH POTS												
Resident	33	46	49	36	32	24	36	41	54	67	71	70
Nonresident	14	17	18	19	9	5	1	2	3	2	3	0
	47	63	67	55	41	29	37	43	57	69	74	70
CLAM DIGGER												
Resident	206	165	125	94	105	91	66	97	103	86	77	110
Nonresident	78	61	38	19	16	11	7	9	8	4	11	13
	284	226	163	113	121	102	73	106	111	90	88	123
BEAM TRAWL												
Resident	0	0	0	1	2	3	0	1	1	1	0	1

1/ In addition, two resident otter trawl licenses were issued in 1962, and two resident beach seine licenses in 1969.

2/ One resident otter trawl license and one resident scallop dredge license were issued in 1971.

APPENDIX TABLE 19. Wholesale value of all fishery products from the Cordova area, 1960 - 1971.

Year	King Salmon	Red Salmon	Coho Salmon	Pink Salmon	Chum Salmon	Dungeness Crab	King Crab	Tanner Crab	Razor Clams	Salmon Eggs	Other	Total
1960	$	$	$	$	$	$	$	$	$	$	$	$ 6,261,524
1961												6,870,341
1962												11,535,853
1963	138305	1655287	1037323	4374857	1815988	803897	11961		6942	37687	11090	9,903,346
1964	153399	2505657	1144666	2201892	748082	818188	3857		6306		2243	7,584,289
1965	215700	3257069	330028	2539895	455001	667884			23486	93918	926	7,583,907
1966	170509	4543303	569458	4032879	1094523	231342	17446		3692	150000	8201	10,821,352
1967	153437	2385322	1025806	3381424	772224	638201	8821		9396	111518	673	8,478,413
1968	125398	2544398	1111756	3410782	1052426	637627	107944	10281	7605	233666	2552	9,244,435
1969	189634	4135511	237987	6066784	1011479	139516	520873	202867	2108	446386		12,953,146
1970	369425	4944369	999073	4204539	668104	222991	9161	260110	28763	692701	109136	12,508,372
1971	222822	3133283	1033517	7536091	1212615	180626	37673	142208	13595	963329	1,012,170	15,487,929